

Globalizing ESL Classrooms: The Design Principles of Academic Reading Strategies Instruction for On-Line Adult Learners

FAIZAH A MAJID

Universiti Teknologi Mara, Malaysia

Globalizing ESL classrooms simply means widening the access to the teaching and learning of the English language so that distance learners, who include local and foreign students, could find and share relevant information and resources easily through the web. According to Howell, William, and Lindsay (2003), on-line learning has become one of the new methods to disseminate information and education. In the era of technology advancement and democratization of education, there is a dire need to understand how best English language is taught via on-line. Hence, issues such as facilitation, motivation, and collaboration need serious considerations in developing any on-line materials (Nor Aziah, 2007). In this paper, reading is given prime importance and serves as the focus of the paper since it is a skill that is most basic in following any education (Pandian, 2006). Hence, readers need to know the reading strategies available and how to effectively use them in order to be able to do the various reading skills required in order to be proficient in reading. It is the aim of this paper to explore relevant theoretical background in the quest to develop academic reading strategies on-line instruction. This paper will scrutinize among others the theories of reading (Cohen, 1990) and adult learners (Knowles, 1990) in order to come up with the design principles. Additionally, three major researches conducted on adult learners' reading strategies (Faizah, 2004), on-line language learning (Faizah et al, 2007), and scaffolding adult on-line learning (Nor Aziah, 2007) will be referred to in order to assist the identification of the design principles. This paper is expected to inform

on-line material designers/developers, curriculum developers, adult learners and trainers. The added value of this paper is that the identified design principles could be made as the main reference as they are generalisable to other English subjects offered on-line besides reading.

Key words: Adult learners, reading strategies, on-line instruction

INTRODUCTION

In the era of education democratization and globalization, one cannot deny the role of the internet as a platform for education delivery. Barker (2000) for example, has observed the rapid growth of the on-line materials and electronic teaching webs. On the part of the instructors, much has been emphasized on their responsibility to plan on-line in order to achieve the targeted goals and objectives successfully (Leflore, 2000). Therefore, it is quite evident that an investigation on the development of on-line instruction is in a dire need of attention. Such investigation is expected to enlighten the instructors besides the curriculum planner and on-line material designers or developers in their quest to develop effective on-line instruction. For that same reason, this paper is initiated. It attempts to propose the design principles of academic reading strategies on-line instruction for adult learners. It is important to note that this paper does not report on new research. It actually takes relevant past research and proposes implications of the research findings for instructional design and implementation. In this paper, reading is given emphasis since it is that one basic language skill which is pivotal to anyone pursuing education (Pandian, 2006).

RELEVANT THEORIES

Theories of Reading

In its broadest term, 'reading' can best be explained as the act of decoding messages which are encoded in printed form. Hudson (2008, p. 10) claims that reading involves "an array of processes and knowledges". She explains that reading requires basic decoding skills, cognitive skills, and interactional skills. Therefore, in discussing reading Hudson postulates that the relationships between "automaticity, background knowledge, reading strategies and metacognitive skills, and purpose and context" (2008, p. 11) need to be addressed. However, to fully understand what reading is, one needs to know the theories that lie behind the simple act of 'decoding.' According to Kamil (1986, p. 71), "a theory is essentially a representation of what is known to be factual about a set of phenomenon." However, "it is a model that assists the visualization of what is meant by the theory". Hence, the discussion on reading models is inevitable in the quest to understand what reading is. Interestingly, reading models can be classified into bottom-up, top-down and interactive. According to Hudson (2008), the bottom-up and top-down models form the two most paradigmatic approaches. Nonetheless she further claims that more and more researchers are inclined towards the interactive approach.

Interactive Models

Interactive models of reading emphasize the role of prior knowledge or pre-existing knowledge in providing the reader with non-visual or implicit information in the text. However, these models add the fact that the role of certain kind of information-processing skills is also important. To this end, interactive models see the advent of the incorporation of bottom-up and top-down approaches to reading (Eskey, 1988; Samuels & Kamil, 1988). Both modes of information processing, top-down and bottom-up alike, are seen as

strategies that are flexibly used in the accomplishment of the reading tasks (Carrell, 1988; Clarke, 1979; Eskey, 1988; Grabe, 1988). With this fact in mind, it is understandable why the interactive models rely on both the graphic and contextual information.

Rumelhart's Interactive Model

One famous example of interactive models is Rumelhart's Interactive Model. In his model, Rumelhart (1977 in Nunan, 1991, p. 65) stresses the influence of various sources namely feature extraction, orthographic knowledge, lexical knowledge, syntactic knowledge and semantic knowledge on the text processing and the reader's interpretation. His model incorporates a mechanism labeled as the 'message centre', which holds the information and then redirects it as needed. This mechanism allows the sources of knowledge to interact with each other and thereby enable higher-level processing to influence lower-level processing.

Stanovich's Interactive-Compensatory Model

Following Rumelhart's model is Stanovich's Interactive-Compensatory Model. Stanovich (1980 in Nunan, 1991) provides a more accurate conceptualization of reading when he incorporates the 'compensatory mode' to his model with the interaction between the top-down and bottom-up processing. His model is an extension of Rumelhart's work which he claims is made better with the addition of the 'compensatory mode' (p. 67). Simply, the compensatory mode enables the reader to, "at any level compensate for his or her deficiencies at any other level" (Samuels & Kamil, 1988, p. 32). As such, this model has enabled researchers to theorize how good and poor readers approach a text.

Adult Learners

Rogers (2002, p. 39) commented that a wide range of concepts is invoked

when the term *adult* is used. According to him, the word adult can refer to a stage in a life cycle, that is a person is first a child, and a youth before he or she is an adult. The word can also refer to status which is normally an acceptance by society that he or she has incorporated more fully into the society. In addition, the word can also refer to social subset, that is adults are not children. Finally, it can also refer to a set of ideals and values, that is adulthood.

Knowles (1990, p. 24) has given a better view when he considers relevant social and psychological aspects in defining the term. With regard to the social aspect, Knowles claims that people are adults if they are capable of performing some social roles typically assigned by their culture. Some examples of such roles are the role of a parent, spouse, worker or responsible citizen. In terms of the psychological aspect, people are adults when they are capable of being essentially responsible for their own life.

Nonetheless, since the concept of adult may differ from context to context, Hazadiah and Faizah's (2007) definition of adult learners is worth noting. Their definition is based on a meta-analysis of previous research done on the adult learners in the Malaysian context. It was discovered that although the Malaysian adult learners have similar characteristics as described in most western literature (self-concept – autonomous and self-directing, experience, and time perspective) there exist some differences in defining the Malaysian adult learners' self-concept - being autonomous and self-directing, and time perspective - reasons to learning and learning readiness. Generally speaking, some adult learners in Malaysia may not be as autonomous and self-directing, and neither do they share similar type of motivation and readiness to learning. As Rogers (2002) claim, context and culture play important roles in defining adult learners.

Relevant Studies

Adult Learners' Reading Strategies (Faizah, 2004)

A qualitative case study was designed to investigate the influence of adult

learners' characteristics (self-concept, experience and time perspective) on their choice and use of the academic reading strategies (ARS). The case study was conducted over 19 weeks, involving 24 academic reading texts. Three instruments; student diaries, participant observations and think aloud protocols were used to triangulate the data collection. The constant comparative method was used in the data analysis. Cohen Kappa's (1960) test of agreement was conducted in the middle of the data analysis and a comfortable value of .93 was obtained allowing the researcher to proceed. This study has discovered several interesting findings. Besides confirming earlier findings and several theories in the literature, it has also contributed new findings with special reference to the influence of the adult learners' characteristics on their ARS. While the less proficient readers were found to be ignorant of the potentials of their characteristics as adult learners, the proficient readers were found to manipulate their characteristics to the advantage of their academic reading. Based on these findings, the study has proposed some pedagogical implications. The pedagogical implications, S+AIRS, are generalisable to the needs of any adult education programmes. The following is a brief introduction of the concept of 'S+AIRS'.

S – share ideas not just by listening to others but most importantly be heard [sic]

+ – promote positive self-concept as 'adult learners' and not 'student-learners'

A – acknowledge the importance of the reading materials in and out of the classroom

I – increase independence on others or self-reliance

R – read reflectively and responsively

S – seek to gain from experience as helpful frames of reference

Adult Learners' On-Line Language Learning (Faizah, et al, 2007)

This study addressed an issue on on-line English language learning amongst the adult learners. A pilot test involving 31 respondents and a newly developed "On-line Language Learning Anxiety" (OLLA) inventory were involved during the data collection. Descriptive statistic using SPSS Version 10 was used to analyze the data. A comfortable alpha value of 0.84 was achieved enabling the researchers to proceed with the study. It was discovered that the adult learners in this study did not indicate their discomfort with computers. However, the mean scores for each individual item which focused on the attributes of the programme using on-line learning facilities somehow shed some light on their anxiety. Basically, the learners lack relevant communication skills and interactive skills to deal with the responses given by the programme. For example, they reported that they became upset when they did not understand the responses (mean = 3.33) and the audio (mean = 3.19). Additionally, they claimed that one needs to be a 'genius' to understand the special keys (mean = 3.21).

These findings can be interpreted as the anxieties faced due to their worries about the attributes of the on-line learning. This could be the result of their lack of experience in taking programmes on-line and exposure to following an on-line learning programme. As proposed by Gos (1999), consistent exposure to and experience with computers will decrease computer anxiety. Hence, what the adult learners need in order to reduce their anxiety which was caused by their worries over the interactive skills and ability to use the special keys is exposure.

Second, the selected adult learners were found to be highly motivated since the mean score for construct 2 is 3.5. This finding is expected of the adult learners since they were in the programme on a voluntary basis. As discovered from the profile analysis, most of them were working adults and had families. Hence, signing up for a programme requires someone with high motivation. In addition, it is quite obvious that the selected adult learners were keen on their programme. This further confirms one of the elements of

adult learning as proposed by Terehoff (2002), which is their ‘readiness to learn’.

Interestingly, despite their high level of motivation, the selected adult learners were not found to have a high level of confidence (mean = 2.82). Some of the obvious concerns that impede their confidence are their worries over not improving English in an on-line course (mean = 3.22). Hence, it could be deduced that coming from traditional classroom settings, these adult learners have yet to adapt themselves in the virtual classroom setting. Also, it could be that learning a foreign language from a computer without the assistance and guidance from a teacher was something quite difficult for the adult learners. Again, this would call for more exposure to on-line learning programmes.

Next, it was discovered that despite experiencing something new, that is learning English language via on-line, the adult learners looked forward to following the on-line programme. This finding is further affirmed by the fact that they were not fearful of learning English via on-line. Generally, this indicates their openness towards a new technology in their learning process and their willingness to try it out. Despite their lack of experience in following a programme on-line, the adult learners did not indicate their unwillingness to follow the programme on-line. Again, their characteristics as adult learners were well manipulated in time of need such as this one. The fact they are autonomous, and ready to learn has made their on-line learning experience easier and manageable.

Scaffolding Adult On-Line Learning (Nor Aziah, 2007)

Nor Aziah (2007) adopted a developmental research approach in investigating suitable design principles and developing a functional prototype of ‘*learning console*’. Primarily, the research was initiated by the dire need of a web-based tool which could support the adult distance learners’ motivational self-regulation and self-direction. This study involved three main phases namely; the identification of the design principles, the development of the prototype,

and the evaluation of the prototype. After a review of the literature and a needs analysis, interviews and observations took place and were recorded with both audio and video. The target sample for the research was a group of 40 Universiti Teknologi MARA (UiTM) distance learners and their instructors, and the university's on-line distance learning support.

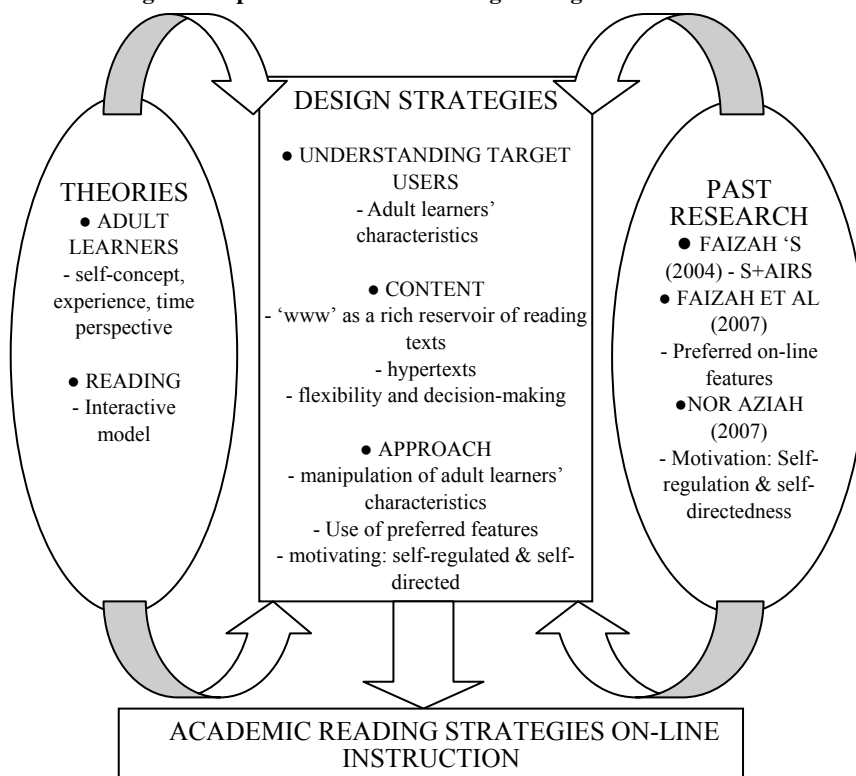
The research has yielded findings on the effectiveness of the developmental research approach in the development of the learning console. Additionally, it also shed some light on the potential of the *learning console* in supporting the on-line distance learners' motivational self-regulation and self-direction. First, it was discovered that the adopted research approach was effective because it "sustained a smooth flow of ideas, insights, and processes, and gathered optimal input from the participants at most of the research stages" (Nor Aziah, 2007, p. 209). The literature review and needs analysis had successfully led the research into the design strategies that were later used to develop a "valid, practical, and effective *learning console*" (p. 210).

Following these design strategies, the learning console was developed which was then evaluated by the learners when they were given the opportunity to use the material. Responses from these users were elicited from the interviews and recorded observations. Generally, it was discovered that the design was not flawed in a manner that impeded its functionality but changes were made to the screen design and task reminder with the inclusion of a task checklist following the pre-production and production of the formative evaluation. Additionally, the respondents agreed that the learning console has potential particularly in guiding and regulating motivation, enhancing self-directed learning, and self-evaluation, and promoting interaction and knowledge building amongst the learners and instructors (p. 211).

Conceptualizing: The Proposed Design Principles of On-Line Academic Reading Strategies Instruction for Adult Learners

As it is the aim of this paper, issues regarding the design principles of the proposed academic reading strategies on-line instruction were explored. Figure 1 signifies the proposed design principles. It is drawn from the relevant theories and research findings. As a start, theories of adult learners particularly those that explicate the adult learners' key characteristics and theories on interactive model to reading were examined. This could lead to a

FIGURE 1
The Design Principles of Academic Reading Strategies On-Line Instruction



better understanding of the potential of the users and the subject matter of the proposed on-line instruction. Besides the theories, past research such as the one conducted by Faizah (2004), Faizah et al (2007) and Nor Aziah (2007) have provided information on how the academic reading instruction could be offered on-line. The design principles of the on-line instruction are proposed based on the theories and findings from past research put together.

As we have seen from her study, Faizah (2004) introduced “S+AIRS” in attempting to provide reading strategies training to adult learners. “S+AIRS” begins with the idea of encouraging the adult learners to be active participants in the on-line reading activities. Block (1986) has also postulated that reader response is important in achieving successful reading. According to Block (1986, p. 472), proficient readers are those who read “reflectively”. As she has elaborated, the readers “relate affectively and personally to the text, directing their attention away from the text and towards themselves” (Block, 1986).

Consequently, the suggestion on the adult learners’ active participation is seen as possible through the sharing of ideas or opinions on the texts read amongst the on-line adult learners. Most importantly, not only are they encouraged to ‘listen’ to others (read the comments of others), but they need to be heard (their comments read by others) as well. Additionally, in their attempt to voice out what is in their mind, the adult learners may indirectly be led into building their self-confidence and most interestingly, involving their personal experiences in the classroom. Not only does this allow opportunities for them to exhibit their self-concept as adults with sufficient and relevant experience that could be brought into class, it also enhances their confidence in their abilities to contribute in making the reading meaningful. As it has been discussed by Rogers (2002, pp. 132-133) adult learners are those who are able to “act thoughtfully and that through critical reflection, they are able to bring decontextualized principles into their immediate and contextualized situations”. Consequently, content designers are urged to design on-line instruction which could enable ‘communication’ between readers. As an example, there could be rooms for chats and spaces for comments or opinions

in the reading activities. Whether the on-line instruction is done synchronously or asynchronously, there should be the availability for such interaction.

Next, it is suggested from “S+AIRS” that the adult learners’ positive self-concept as ‘adult learners’ (Knowles, 1990) and not ‘student-learners’ (Rogers, 2002) be promoted. In the study, the participants were all in-service TESL students. Interestingly, despite the fact that they were English teachers themselves, the less proficient readers were not able to monitor and regulate their own reading like the proficient readers did. It has been learnt that the main reason for their inability is their lack of trust and confidence in their capacity as adult learners. Instead of making their own judgment based on their experience as English teachers, the less proficient readers were found to over-rely on others they considered more in authority. This provides an evidence for the positive and negative self-concepts as suggested by Knowles (1990) and Rogers (2002) respectively.

In order to promote better use of the adult learners’ reading strategies via on-line instruction, it is proposed that the instruction could start with the idea of encouraging their students to make decisions about and evaluate their own reading. One way of doing so is by reminding them not to “put themselves into the position of being consciously a learner” (Rogers, 2002, p. 139). As Rogers (2002) has cautioned, it could make the adult learners “adopt the role of a student and submit to a planned process of tuition” (Rogers, 2002). Quite clearly this hinders their ability to take control of their own reading since they are under the influence of being directed as they were as school students rather than self-directing. It is quite common to see pop-downs when users click on an icon. The pop-downs for example could provide the opportunities for decision-making particularly those that involve in the selection of reading topics and activities. Likewise, there could also be icons from which the learners could decide their level of task difficulty based on their own evaluation of their performance in the prior activities.

Following that, “S+AIRS” suggests the idea of making the adult learners aware of the importance of their reading materials in and out of the classroom boundaries. It is believed that when the importance of the reading materials is

connected to what they could gain emotionally and spiritually, the adult learners may find it easier to approach the academic texts. In Faizah's study, the research participants who were proficient readers had displayed their appreciation of the academic texts assigned to them. The fact that they are seeking some enlightening learning experience out of the texts and not certain accomplishment that is to be rewarded had indirectly led them to be more intrinsically motivated than the participants who were less proficient readers. Consequently, the proficient readers were found to approach their reading more easily. Hence, it is highly recommended that the on-line reading texts are those which are of interest to the adult learners. One way of doing so is to allow the students themselves to choose their reading texts or at least decide on the reading themes. In a way, besides taking their reading interests into consideration, this also enables them to practice their autonomy in the on-line instruction. The fact that instruction for the adults should be more learner-centred has been strongly proposed by Gill (2001), Knowles (1990) and, Mocker (1980). Unlike the printed materials, on-line instruction has the luxury of space in the "World Wide Web" (www) which could enable a rich resource of reading materials.

In addition, dependence on others should not be encouraged as proposed by "S+AIRS". A "clash of image" (Rogers, 2002) would happen if this is allowed. Instead of practicing 'adulthood', the adult learners may be prone to "studenthood". Ignoring that they have relevant experience to refer to, the adult learners may instead seek constant guidance from others they consider more proficient than they are. Therefore, opportunities should be provided for the adult learners to take control of their reading. Indirectly, this would lead them to be more 'self-directing' and thus escape from the tradition of 'studenthood' (Rogers, 2002). One way of allowing them to be more independent in their reading is by focusing on the comprehension of the text as a whole and not on the syntax of the text. Faizah (2004) discovered that the less proficient readers were found to have reading difficulties and needed constant guidance due to their over-powering consciousness on grammar and vocabulary. This had indirectly intimidated their ability to compensate for the

missing information and thus hindered their text comprehension. As it has been suggested by Rumelhart (1977 in Nunan 1991) and Stanovich (1980 in Nunan 1991), readers need to be able to use both bottom-up and top-down approaches flexibly in their reading. Therefore, it is suggested that the less proficient readers should give less concern on the syntax and more on the richness of their experience in assisting their text comprehension particularly in compensating for the missing information.

Relating these findings to the proposed on-line instruction, the types of reading activities and tasks should be directed towards encouraging independence while reading. Unlike printed texts, on-line offers 'hypertexts' which are multi-linear and interactive in nature. With this, the possibility of altering the contexts of information and deciding on the reader's paths are seen as most possible (Cynthia, 2007). Room for flexibility and decision-making are aplenty through the hypertexts. The adult learners could be trained to focus on comprehension of the text rather than the syntax. For example, they could be led into finding more information to compensate the missing information through reading 'hypertexts'.

Not only that, to ensure the adult learners could maximize their potentials as effective academic readers, they should be encouraged to read reflectively and responsively. Asking questions, interacting with the texts and author and giving their opinions are some of the activities that should be encouraged for them to do. Besides enabling them to bring in their experience into the class, they are also encouraged to decide on the persuasiveness of the discussion presented in the texts. This may indirectly make their reading more meaningful to them. As observed, the proficient readers in the study were reading more reflectively and responsively. In order to encourage the less proficient readers to be as reflective and responsive, more discussions and student-student interaction should be conducted following their reading. The discussions and interaction amongst the adult learners could provide opportunities for them to share ideas. This is especially so when the environment is friendly and unthreatening. Many approaches to reading instruction to adult learners such as the Cooperative Learning Process (CLP) (Mocker, 1980) and Directed

Reading-Thinking Activity (DR-TA) (Stauffer, 1969) highlight the importance of the discussions and student-student interaction. Likewise, the proposed design principles recommend that the on-line instruction is as 'interactive' as possible, allowing the learners to communicate with each other as well as with the text while attempting the on-line reading activities. As mentioned, chat rooms, interaction space, and pop-downs could accommodate the need for interaction in on-line reading.

Finally, the adult learners should be encouraged to "dig from their reservoir of knowledge" (Knowles, 1990). It is important to make them realize that their 'experience' is their best asset in their reading process. Since reading is often associated with making interpretations and connecting to prior knowledge, their 'experiences' which they may have pooled from their previous learning, teaching and recreational contexts are valuable resources. However, the fact that some adults may find it difficult to make wise selections of the experiences to be used as their 'frames of reference' suggests that proper training on how they could translate relevant experience into their learning contexts is important. With regard to on-line reading, it is possible to encourage the learners to save respective reading texts for future retrieval. Also, with on-line, several windows could be opened simultaneously enabling the readers to refer to as many sources of information as possible. Hence, designers could consider relevant websites when providing reading activities on certain topics or issues.

Additionally, findings from past research that could provide ideas on how to make the on-line instruction more appealing and user-friendly to the adult learners are also referred to in proposing the design principles for the on-line instruction. Faizah et al's (2007) findings on the preferred on-line features could provide suggestions to the designer on how to make the on-line instruction more user-friendly and attractive and challenging at the same time. To begin, as proposed by Faizah et al (2007), the adult learners need to be trained about the relevant interactive skills in an on-line programme. They need to be exposed to the different uses of keys and icons available on the template of the programme. Moreover, the adult learners need to be exposed

to the graphic designs and the effects each design has on the on-line learning programme. Additionally, they need to get used to the linkages and their uses in the on-line learning programme.

Besides the relevant interactive skills in following an on-line language learning programme, content developers and graphic designers could help by coming up with a user-friendly on-line English learning programme. Besides having comprehensible instruction and a well designed study plan, on-line English programme developers must also take note of the differences in levels of proficiency each adult learners have in following the on-line English programme. The proficiency includes not only the language but also the proficiency in handling the processes in the on-line programme.

Finally, findings from the research which focused on motivation could enlighten both content developer and designer on how to make the on-line instruction a scaffold to the adult learners' learning process via on-line. Additionally, the findings could also provide ideas on how to make the users hone their self-regulation and self-directedness. Nor Aziah (2007) conducted a study and came up with what she calls a "valid, practical, and effective *learning console*" (p. 210). The list of the design strategies which would lead to motivational self-regulation is provided below.

- 1) elicit confidence through success opportunities
- 2) reward competence
- 3) make achievement and improvement explicit to the learners
- 4) provide contract and consequence
- 5) allow delving into relevant experiences to satisfy intrinsic needs or goals
- 6) maintain diversity in task choice
- 7) create an environment which enables reflection, self-consequating, self-monitoring, and self-talk
- 8) encourage effort and persistence through continuous planning for task
- 9) provide self-evaluation

Besides that, a list of the design strategies which would lead to motivational

self-direction is as follows.

- 1) keep learners aware of their learning plans and the consequences should they fail to execute them
- 2) embed guidance through negotiation, feedback, and reminders
- 3) support formulation and negotiation of learning goals
- 4) allow learners' choice of task and identification of resources
- 5) allow learners to assume some control and autonomy
- 6) allow self-directed evaluation of the learning process
- 7) provide opportunities for learners to improve

(ibid)

All in all, Nor Aziah's (2007) study has summarized how the proposed model for on-line instruction could be offered most effectively by considering the motivational factors for the adult learners. Coincidentally, her list of strategies is relevant with the other research findings referred to in the proposed design principles for on-line instruction. There is still the emphasis for interaction, autonomy, and use of prior knowledge in on-line learning. The proposed design principles recommend that a similar list of strategies should be considered when developing the on-line reading instruction when motivation is to be capitalized.

CONCLUSION

This paper has brought to light the design principles in developing the on-line instruction for academic reading strategies. In attempting to do so, it has elaborated on the relevant theories related to reading, and adult learners. Additionally, to add weight to the proposed design principles, several findings from relevant research were also considered. Primarily emphasis was given to research done on adult learners, on-line language learning, and scaffolding adult on-line learning. The paper is then completed with a

conceptual framework which signifies the proposed design principles. It is expected that the proposed design principles will not only benefit the targeted aspect of reading – reading strategies. Instead, it could also be generalized to the development of on-line instruction for other related areas besides English language.

THE AUTHOR

A. Faizah is a senior lecturer at the Education Faculty, Universiti Teknologi MARA, Malaysia. Her research interests are reading, writing, adult learners and professional development. Her recent publications include: The development of an academic reading strategies pedagogical model for ESL adult learners. In *The International Journal of Learning*. Vol 15(1). 2008. pp. 203-210.

Email: faiza4004@salam.uitm.edu.my

REFERENCES

- Barker, P. G. (2000). Developing teaching webs – advantages, problems, and pitfalls. *Proceedings of the EDMEDIA 2000 International Conference*. 54-59.
- Block, E. (1986). The comprehension strategies of second language readers. *TESOL Quarterly*, 20(3), 463-494.
- Carrell, P. L. (1988). Introduction: Interactive approaches to second language reading. In P. L. Carrell, L. Devine and D. E. Eskey (eds.). *Interactive approaches to second language reading* (pp. 1-8). Cambridge: Cambridge University Press.
- Clarke, M. (1979). The short-circuit hypothesis of ESL reading – or when language competence interferes with reading performance. *The Modern Language Journal*, 64(2), 203-9.
- Cohen, A. D. (1990). *Language learning: Insights for learners*. Boston: Heinle & Heinle.
- Cohen, J. (1960). A coefficient of agreement for nominal scales. *Educational and Psychological Measurement*, 20(1), 37-47.

- Cynthia, Y. R. (December, 2007). *Hypertext reading strategies*. Paper presented at UiTM Competency Level Assessment Course. Shah Alam, Malaysia.
- Eskey, D. E. (1988). Holding in the bottom: An interactive approach to the language problems of second language readers. In P. C. Carrell, J. Devine, and D. E. Eskey (Eds.). *Interactive approaches to second language reading* (pp. 93-100). Cambridge: Cambridge University Press.
- Faizah, A. M. (2004). *Adult learners' characteristics and their academic reading strategies: A case study*. Unpublished doctoral thesis. Universiti Teknologi Mara, Malaysia.
- Faizah, A. M., Khairezan, R., & Siti Hawa, O. (2007). Adult learners' characteristics and their anxiety in on-line language learning. In A. Pandian, Y. L. Koo, & P. Kell (Eds.), *Innovation and intervention in ELT: Pathways and practices* (pp. 201-223).
- Gill, L. (2001). *Needs of adult learners*. Available online at UOPHX, EBSCO.
- Gos, M. W. (1996). Computer anxiety and computer experience: A new look at an old relationship [Electronic version]. *Clearing House*, 69, 271-276.
- Grabe, W. (1988). Reassessing the term "Interactive". In P. C. Carrell, J. Devine, and D. E. Eskey (eds.) *Interactive approaches to second language reading* (pp. 55-70). Cambridge: Cambridge University Press.
- Hazadiah, M. D., & Faizah, A. M. (2007). *Scaffolding adult education: Narratives of Malayian practitioners*. Shah Alam: UPENA.
- Howell, S. L., Williams, P. B., & Lindsay, N. (2003). *Thirty-two trends affecting distance education: An informed foundation for strategic planning*. Retrieved October 12, 2003, from <http://www.westga.edu/~distance/ojdla/fall63/howell63.html>.
- Hudson, T. (2008). *Teaching second language reading*. Oxford: Oxford University Press.
- Kamil, M. (1986). Reading in the native language. In B.H. Wing (Ed.), *Listening, reading, writing: Analysis and application* (pp. 7-91). Middlebury, VT: North-East Conference on the Teaching of Foreign Languages.
- Knowles, M. (1990). *Adult learners: A neglected species*. London: Kogan Page.
- Leflore, D. (2000). Theory supporting design guidelines for web-based instructions. In B. Abbey (Ed.). *Instructional and Cognitive Impacts of Web-based Education* (pp. 102-117). London: Idea Group Publishing.
- Mocker, D. W. (1980). Cooperative learning process: Shared learning experience in teaching adults to read. In L. S. Johnson (Ed.) *Reading and the adult learner*. (pp. 35-40). International Reading Association.
- Nor Aziah, A. (2007). *Design and evaluation of a 'Learning Console' to scaffold the adult online distance learners' motivational self-regulation and self-direction*.

Unpublished doctoral thesis. IIUM.

- Nunan, D. (1991). *Language teaching methodology: A textbook for teachers*. New York: Phoenix ELT.
- Pandian, A. (2006). Information technology challenges: Practices and views of language learners In K. K. Muhamad, A., A. R. Norizan, & A. E. Mohamed (Eds.) *Online teaching and learning in ELT* (pp. 87-105). Penang: Penerbit USM.
- Rogers, A. (2002). *Teaching adults*. London: Oxford University Press.
- Samuels, S. J., & Kamil, M. (1988). Models of the reading process. In P.D. Pearson, R. Barr, M. Kamil & P. Mosenthal (Eds.), *Handbook of reading research*, (pp. 185-224). New York: Longman.
- Stauffer, R. G. (1969). *The Language Experience Approach to the teaching of reading*. New York: Harper and Row.
- Tarehoff, I. I. (2002). *Elements of adult learning in teacher professional development*. NASSP Bulletin, 86(632), 65-77.