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ABSTRACT

Previous research on learner strategy instruction has produced mixed results. This article reports a study in which two classes of 32 Singapore upper secondary school second language users of English participated. Both classes had the same teacher. One class received instruction in asking higher order questions; the other class did not. Higher order questions are related to the development of thinking skills. Participants' questions and responses to questions during small group discussions were tape recorded before and after the 10-week treatment. While there were no significant pre-instruction differences, after the instruction, the treatment class asked significantly more higher order questions and provided significantly more elaborated responses. A .05 alpha level was used. These findings are discussed in light of theory and previous research on issues of learner strategy instruction, the teaching of thinking skills, and learners' use of questions.

**CAN LEARNER STRATEGY INSTRUCTION SUCCEED? THE CASE OF HIGHER
ORDER QUESTIONS AND ELABORATED RESPONSES**

INTRODUCTION

Thinking skills are now an important part of the curriculum in many countries and educational institutions around the world (e.g., Curriculum Planning Division, 1991), as societies gain greater appreciation of the need to develop citizens who are capable of independent thought and knowledge creation rather than of mindless repetition of knowledge. This emphasis on thinking is also reflected in second language (L2) education (e.g., Hanafi, 1997).

Instruction in thinking fits within the broader construct of learner strategy instruction (Baker & Brown, 1984; Brown & Palincsar, 1982; Cohen and Weaver, in press; Wenden, 1991). Wenden (1997) described three approaches to instructing learners to use new strategies. One, a separate programme apart from language instruction, e.g., in a self-access centre, can be set up. Two, learner strategy instruction can take place in the language learning classroom but as a separate component. However, Wenden suggested that the third approach, integration

of strategy instruction into regular language instruction, may be the most effective approach.

A key strategy for promoting thinking is the use of questions. Questions form a core element of all verbal interaction (Sullivan and Clarke, 1991). Much research has been done on the role of questions in education generally (e.g., Dillon, 1984). In L2 education questions are seen as crucial to generating input and output. Brock (1986) found that students' spoken output was greater in response to teachers' referential questions - ones for which askers do not already know the answer - than in response to teachers' display questions - ones for which askers already know the answer. Swain (1985) linked output with L2 acquisition. Questions are also a key tool which L2 learners can use to engage in negotiation for meaning (Long, 1981, 1983; Young, 1988). Such negotiation has been shown to increase the amount of comprehensible input received (Doughty and Pica, 1986; Gass and Varonis, 1985; Pica, Young, and Doughty, 1987) and is, thus, seen as increasing language development, because comprehensible input is believed to promote language acquisition (Krashen, 1985).

Bloom (1956) is well-known for his work in differentiating questions according to the type of cognitive activity they stimulate, the focus of the current study. Lower order

questions generate more superficial thought, e.g., recall of information, while higher order questions are those which stimulate learners to think more deeply, e.g., application, analysis, or evaluation of information. Such deep thinking is in line with the communicative approach to L2 learning which highlights the importance of meaningful interaction, rather than rote repetition or study of language as object (Allwright, 1979).

Previous studies, mostly in first language (L1) classrooms, have examined the relationship between strategy instruction and student use of higher order questions. Davey and McBride (1986) and King (1990) in the U.S. found that strategy instruction was associated with greater quantities of higher order questions. Alcon (1993) in Spain, in the only previous study of this issue with L2 learners the present researchers are aware of, found students who received instruction asked more higher order questions.

Of course, questions usually lead to responses. These too have been classified in many ways. Of particular relevance to this study is the work of Webb (1989 and elsewhere) who classified responses into two types - elaborated and unelaborated - the difference being that an elaborated response provides not just an answer to the question but also an explanation of some of

the thinking behind the answer. Webb (1989) reviewed studies in which elaborated responses were associated with learning gains in content subjects for those L1 students who received the responses as well as for those who provided them. In specific regard to L2 instruction, knowledge of the language needed to provide elaborated responses, as well as to ask higher order questions, forms an important part of learner knowledge of language functions (Coelho, 1992). King (1990) found that instruction was associated with increases in both higher order questions, as mentioned above, and with elaborated responses. Alcon (1993) did not investigate the latter issue.

Much of the research on questions and responses has taken place with students studying together in groups. This fits with the views of theorists such as Vygotsky (1978) and Bruner (1986) who argued that knowledge is socially constructed. Student-student interaction is believed to provide cognitive scaffolding (Palincsar and Brown, 1984) which enables students to support each other's learning and to build on one another's knowledge.

Two studies of Hong Kong second language classrooms (Tsui, 1985; Wu, 1991, cited in Tsui, 1996) found that in a teacher-fronted setting students asked no questions. Tsui (1996)

attributed this partly to the anxiety students feel in the whole class format and proposed group activities as one means of lessening anxiety. Long and Porter (1985) suggested that groups provide a less stressful environment for students to use their L2. This may encourage students to ask more questions and to take more risks in providing elaborated responses. Further, Long and Porter argued that in groups students speak more and are able to use a greater range of language functions, because they have more independence than in a teacher-fronted mode. This greater range of functions would certainly include types of questions and responses. Indeed, being able to pose appropriate questions and make appropriate responses to questions are collaborative skills vital to successful group functioning (Jacobs and Kline-Liu, 1996)

However, just putting students in groups and asking them to work together may be insufficient to generate the kind of language and learning desired (Johnson, Johnson, and Holubec, 1993). A great deal of research has been conducted into groups in education (for a review, see Slavin, 1990). As a result, a wide range of techniques have been developed to encourage students to learn together effectively (Kagan, 1994). These procedures include providing students with scripts which suggest appropriate language to use, giving students rotating

roles to play in the group, and careful teacher monitoring of group interaction.

The present researchers are aware of no previous study with L2 learners which investigated the association between strategy instruction and the use of both higher order questions and elaborated responses. Further, the studies cited above were done in the West, whereas the current study was conducted in Asia - with predominantly Chinese participants - where students may be thought to be less likely to ask higher order questions and give elaborated responses, owing to concerns about authority and face (Ho & Crookall, 1995).

The present study sought to answer two research questions. A null hypothesis was used in both cases.

(1) Will 10 weeks of instruction focused on asking higher order questions be associated with students asking more higher order questions during peer interaction?

(2) Will 10 weeks of instruction focused on asking higher order questions be associated with students providing more elaborated responses during peer interaction?

METHODOLOGY

Participants

Secondary school students in Singapore are placed into one of four main streams - Special, Express, Normal (academic), and Normal (technical) - in descending order of past achievement. Two intact Secondary 5 (approximately 17 years old) Normal (academic) classes - with a combined total of thirty-two students - at a government school participated in the study. Participants were 50% female, and all were L2 speakers of English, the large majority of whom spoke Chinese as their L1, with the remainder speaking either Malay or Tamil. The two classes were of equal English and history proficiency according to their scores on a nation-wide examination.

The same regular classroom teacher, who had seven years experience, taught both classes. The content area of the classes was history, with English as the medium of instruction. Participants had experience studying in groups, but had received no previous instruction in asking higher order questions or providing elaborated responses.

Procedure

One class was randomly assigned to be the experimental class which was to receive instruction in generating higher order questions. Students in each class were then randomly divided,

using their index numbers, into groups of four.

The research was conducted over 10 weeks. Once a week the teacher gave each class a 30-minute lecture on a history topic. Students were then instructed to work in their groups for 20 minutes to prepare an answer to an essay question based on the lecture. The question required both lower and higher order thinking. After the discussion, one member of each group presented their group's answer. The pre-instruction task, conducted before Week 1 of the research, involved audio taping the 20-minute discussions of all the groups following a similar lecture. These recordings were transcribed for analysis.

After the pre-instruction task, each week after the 30-minute lecture on a history topic, the experimental group received instruction centred on teaching students to use a set of generic question stems adapted from Alcon (1993) and King (1990). These were designed to provide students with language frameworks for asking higher order questions. Examples of such question stems include "Why were there ... ?", "What were the causes of ...?", and "How did affect ...?"

The other class, the control group, participated in discussion without instruction in questions. Instead, the pupils in the

control class worked in their groups without any guidance in discussion techniques. This was the normal procedure for such discussions which students in both classes had experienced prior to the study.

In Week 1 of the treatment, after the usual 30-minute lecture, the teacher explained the difference between lower and higher order questions in terms of their functions and importance to learning. Next, pupils were given some lower and higher order questions, and then asked to label them appropriately. After that, the questions stems were presented in a handout, and the teacher gave examples of how to use them and how to answer questions generated from the stems. Next, a pupil was chosen to role play with the teacher as partner in a simulated discussion. Pupils then formulated three higher order questions in order to complete a task which required them to answer an essay question based on the lecture presented. Finally, two students came to the front of the class and asked and answered each other's questions, followed by feedback from the teacher on how to ask questions and provide elaborations.

Over the next nine weeks, once a week, the experimental group continued to practise using the question stems, with the handout as an aid, during the 20-minute discussion time after each 30-minute lecture. Each group member took turns to pose

questions to the rest of the group as they prepared to present their response to the essay question. When a questioner had posed a question, the other three group members provided answers. Each group had a rotating group leader whose task was to encourage members to actively participate in the discussion.

The teacher observed group interaction and reiterated the importance of using higher order questions and of providing appropriate responses to the questions. The teacher was provided with detailed guidelines for doing the strategy instruction, and implementation was monitored by the first author by means of frequent discussions with the teacher and by examining a log the teacher kept to record the treatment's progress. As stated above, the control class used the same cycle of lecture, discussion, presentation, but without instruction in asking higher-order questions.

After the 10 weeks, the post-instruction task was carried out. The procedure was identical to that for the pre-instruction task, but the lecture topic was different. Again, all group discussions were audio taped for transcription and analysis. On the post-instruction task, participants in the experimental group were reminded to use the peer questioning strategy in which they had received instruction. However, they were not

allowed to refer to the handout with the question stems. This was done to see if students had internalized the stems.

Analysis

The data were analyzed as to the types of questions asked and responses given. Questions were classified into three types: lower order, higher order, and procedural. Responses to the lower and higher order questions were classified according to the level of elaboration provided, i.e., unelaborated or elaborated, based on an adaptation of the classification systems of Webb (1989) and King (1990). Responses to the procedural questions were not considered, as they were outside the realm of the present study. Classification was done by group of four rather than for individual participants, because of difficulty in distinguishing individual students' voices.

Coding of the data was done by the first author who is also an experienced secondary school teacher. Interrater agreement was measured with the assistance of another secondary school teacher who teaches both English and history. A 94% level of agreement was found for the coding of the questions and 97% for the responses. Using the STATVIEW statistical package, two unpaired two-tailed t-tests for independent samples were conducted. The first compared pre-instruction task scores of the control and experimental classes in order to determine if

there was a significant difference between the classes as to the number of higher order questions and elaborated responses. The second t-test involved the same comparison for the post-instruction data. An alpha level of .05 was set.

RESULTS

Table 1 shows the mean number of each type of question and response for the experimental and control classes on the pre-instruction task. No statistically significant differences were found between the experimental and control classes on the pre-instruction task. This suggests that before the research began the two classes were equivalent in the ability and proclivity to ask higher order questions and to provide high elaboration responses. However, in the post-instruction task, the experimental participants asked significantly more higher order questions and provided significantly more elaborated responses compared to the control group (see Table 2). Thus, the null hypothesis was rejected for both research question 1 (higher order questions) and research question 2 (elaborated responses).

TABLE 1
t Values for Question Type and Response - Pre-treatment

Control (N=16)		Experimental (N=16)		DF	t value	P
Mean	S.D.	Mean	S.D.			

Question Type						
Recall						
13.5	5.20	14.75	4.646	6	-0.359	0.7321
Higher Order						
4.0	1.63	4.25	2.062	6	-0.19	0.8555
Response Type						
Unelaborated						
30.0	17.4	37.5	11.0	6	-0.729	0.4933
Elaborated						
6.25	2.50	5.75	2.062	6	0.309	0.7681

TABLE 2
t Values for Question Type and Response - Post-treatment

Control (N=16)		Experimental (N=16)		DF	t value	P
Mean	S.D.	Mean	S.D.			
Question Type						
Recall						
8.75	3.202	38.5	13.077	6	-4.42	0.0045
Higher Order						
1.75	1.258	14.5	6.758	6	-3.71	0.01
Response Type						
Unelaborated						
33.25	24.391	72.75	25.902	6	-2.22	0.0682
Elaborated						
6.25	3.403	20.75	4.787	6	-4.937	0.0026

Impressionistic examination of the questions asked on the pre- and post-instruction tasks suggests that the higher order questions of the participants in the experimental class became broader in terms of the kind of information they sought. While on the pre-instruction task such questions focused mainly on seeking explanations, on the post-instruction task there were more questions which also asked for opinions based on evidence. Another seeming improvement for the experimental class was in the way they structured questions. On the pre-instruction task, they appeared to have great difficulty formulating higher order questions. In comparison, on the

post-instruction task, their higher order questions were phrased more like they are by proficient speakers of the L2. Not surprisingly, the quality of the elaborated responses also improved on the post-instruction task. In line with the broader range of higher order questions, responses of the experimental class also showed more variety, including more expressions of judgements.

DISCUSSION

Conducting learner strategy instruction

The results of this study lend support to the view that it is possible to train students to adopt new, more effective learner strategies. (However, see Rees-Miller [1993] for a less optimistic view of strategy instruction). This finding is particularly noteworthy as the participants in this study were not from the stream that normally go on to university. Thus, they are among the type of students that some might dismiss as being incapable of or uninterested in doing higher order thinking (Feuerstein, 1980).

However, the particular way that the instruction was done bears attention. First, language instruction and strategy instruction were integrated into the regular content (Baker and Brown, 1984; Wenden, 1997). Mohan (1986) pointed out that too

often the role of language as a medium of learning is overlooked in subject matter instruction whilst in language learning the fact that content is being communicated is not taken into account. This results in learning being compartmentalized, as knowledge and skills are taught in isolation with the hope that they will be automatically transferred and consolidated across the curriculum. Unfortunately, under such conditions, this transfer of knowledge and skills may not occur, especially with less proficient students (Jones, et al., 1987).

A second point to make about the instruction is that students were given an explanation of why the skills they were learning were important (Chamot and Rubin, 1994; Ellis and Sinclair, 1989). They were not just told to do it because the teacher said so; instead, they had a chance to see how learning to ask higher order questions and supply elaborated responses was beneficial to them. A third feature of the instruction worth noting is that language support, as advocated by Baker and Brown (1984) and Jones, et al. (1987), was provided to learners in the form of the question stems. This kind of language support is a common feature of many L2 instructional materials (e.g., Richards, 1995). This support also included demonstrations by the teacher and fellow students of how to ask higher order questions and give elaborated replies.

Working in groups provided opportunities for pupils in the experimental class to practise the new strategies they were taught. Groups are seen by many educationists as settings which encourage thinking (Cam, 1995). This is in line with the views of Long and Porter (1985), mentioned previously, in the second language learning context. They suggested that groups encourage: (1) more student talk and (2) a greater variety of talk, all within (3) a more relaxed atmosphere. These three characteristics of groups may also make them more facilitative of the acquisition of thinking strategies (Wilks, 1995).

The structuring of this group interaction in the experimental class was noteworthy in demonstrating planning for effective group interaction as advocated by proponents of cooperative learning approaches to the teaching of language and thinking (e.g., Bellanca and Fogarty, 1993). Group members shared a common goal: preparing a collective response to the essay question posed by the teacher. This promoted what in the cooperative learning literature is called positive goal interdependence (Johnson, Johnson, and Holubec, 1993). Further, each was given the opportunity to ask higher order questions and was encouraged to take part in responding to them, thereby promoting the key cooperative learning concepts of individual accountability and equal participation (Kagan,

1994). Group interaction was also monitored by the teacher, in line with cooperative learning theorists' attention to group dynamics (Johnson, Johnson, and Holubec, 1993).

The role of questions

In the L2 classroom, teachers are the ones who usually ask most of the questions (Nunan, 1990). However, the results of this study suggest that with proper preparation students can also be effective questioners (Baker and Brown, 1984). Thus, it might be worthwhile not only for teachers to ask more higher order questions themselves in order to encourage thinking, but also to provide more instruction and opportunities for students to ask such questions. Indeed, as Smith (1992: 130) urges, "Schools should be fertile with questioning".

However, in many countries and institutions the use of higher order questions would imply major curricular changes. For instance, a shift would be needed away from an emphasis on students repeating the one right answer previously provided by the teacher or the textbook and toward an emphasis on valuing the thinking process which students undertake as they grapple with complex tasks which have no one, previously taught right solution. Further, the whole evaluation system would need rethinking (Cambourne and Turbill, 1994).

Limitations of the study and suggestions for future research

Any implications drawn from the current study must be tempered by at least two limitations of the study. First, the number of participants was relatively small. Second, due to administrative constraints, it was not possible to randomly assign students individually to the experimental and control conditions.

Future research could address both the above limitations. Further, research could examine the other aspects of the language which learners produce with and without instruction. For instance, the quantity, syntactic complexity, and the lexical variety of learner talk in the control and experimental groups could be examined. Other areas of investigation could be whether students make gains in either content knowledge or language proficiency as a result of the questions they ask and the responses they provide, as well as whether the strategies they learn become part of their long-term repertoire of strategies. Affective variables could also be studied, e.g., interest in the topic being discussed and liking for the course.

To conclude, we would like to highlight the vital role that educators need to play in encouraging higher order thinking among students. Because, as well as although, it seems that

technology is taking over more and more tasks formerly done by humans, people's importance in shaping our own lives and those of others has not at all diminished. Thus, now more than ever, we and our students need to be active thinkers.

As Andrew Gonzalez (1997: 64) put it recently:

While the importance of technology in accelerating and facilitating learning cannot be underestimated, the experience of history and the insights gleaned from the psychology of motivation and the sociology of learning make it imperative for us to look at the environment or social conditions of the classroom and its learners as well as teachers in order to make testable projections on what the future will be like for language classrooms, their features, their activities, and above all, their results.

We should, thus, put our bets not on gadgetry or technological aids but on human beings and their infinite capacity to learn and to adapt themselves to new challenges and conditions in the language classrooms of the future. [italics added].

REFERENCES

ALCON, E.G. (1993) High cognitive question in NNS group classroom discussion: do they facilitate comprehension and production of the foreign language? *RELC Journal* **24**, 73-85.

ALLWRIGHT, R. (1979) Language learning through communication practice. In C.J. Brumfit, and K. Johnson (eds.), *The communicative approach to language teaching*, 167-182. Oxford: Oxford University Press.

AYADURAY, J. (1995) *The guided peer questioning technique and its effect on oral production*. Unpublished masteral dissertation. SEAMEO Regional Language Centre, Singapore.

BAKER, L. and BROWN, A.L. (1984) In P.D. Pearson (ed.), *Handbook of reading research*, 353-394. New York: Longman.

BELLANCA, J. and FOGARTY, R. (1993) *Catch them thinking* (2nd ed.). Palatine, IL: Skylight.

BLOOM, B.S. (1956) *Taxonomy of Educational Objectives: Classification of Educational Goals*. New York: David McKay.

BROCK, C.A. (1986) The effects of referential questions on ESL classroom discourse. *TESOL Quarterly* **20**, 47-58.

BROWN, A.L. and PALINCSAR, A.S. 1982. Inducting strategic learning from text by means of informed, self-control training. *Topics in Learning and Learning Disabilities* **2**, 1-17.

BRUNER, J. (1986) *Actual minds, possible worlds*. Cambridge, MA: Harvard University Press.

CAM, P. (1995) *Thinking together*. Sydney: Primary English Teaching Association.

CAMBOURNE, B., and TURBILL, J. (eds.). (1994) *Responsive evaluation*. Armadale, New South Wales: Eleanor Curtain.

CHAMOT, A.U. and RUBIN, J. (1994) Comments of Janie Rees-Miller's "A critical appraisal of learner training: theoretical bases and teaching implications". *TESOL Quarterly* **28**, 771-776.

COELHO, E. (1992) Cooperative learning: foundation for a communicative curriculum. In C. Kessler (ed.), *Cooperative language learning*, 31-50. Englewood Cliffs, NJ: Prentice Hall Regents.

COHEN, A.D. and WEAVER, S. (in press) Strategies-based instruction for second language learners. In W.A. Renandya and G.M. Jacobs (eds.), *Learners and language learning*. Singapore: SEAMEO Regional Language Centre.

CURRICULUM PLANNING DIVISION (1991) *English language syllabus (secondary)*. Singapore: Ministry of Education, Singapore.

DAVEY, B. and MCBRIDE, S. (1986) Effects of question-generation training on reading comprehension. *Journal of Educational Psychology* **78**, 256-262.

DILLON, J.T. (1984) Research on questioning and discussion. *Educational Leadership* **42**, 50-56.

DOUGHTY, C. and PICA, T. (1986) Information gap tasks: do they facilitate second language acquisition? *TESOL Quarterly* **20**, 305-325.

ELLIS, G. and SINCLAIR, B. (1989) *Learning to learn English: a*

course in learner training. London: Cambridge University Press.

FEUERSTEIN, R. (1980) *Instructional enrichment*. Baltimore, MD: University Park Press.

GASS, S.M. and VARONIS, E.M. (1985) Task variation and native/non-native negotiation of meaning. In Gass, S.M and Madden, C.G. (eds.), *Input in second language acquisition*, pp. 149-162. Rowley, MA: Newbury House.

GONZALEZ, A. (1997) Language classrooms of tomorrow in the Philippines: dreams and realities. In G.M. Jacobs (ed.). *Language classrooms of tomorrow: issues and responses*, 55-66. Singapore: SEAMEO Regional Language Centre.

HANAFI, M. (1997) The Malaysian English Language classroom in the next millennium: challenges and concerns. In G.M. Jacobs (ed.). *Language classrooms of tomorrow: issues and responses*, 78-90. Singapore: SEAMEO Regional Language Centre.

HO, J., and CROOKALL, D. (1995) Breaking with Chinese cultural traditions: learner autonomy in English language teaching. *System* **23**, 235-243.

JACOBS, G.M., and KLINE-LIU, K. (1996) Integrating language functions and collaborative skills in the second language classroom. *TESL Reporter* **29**, 21-33.

JOHNSON, D.W., JOHNSON, R.T., and HOLUBEC, E.J. (1993) *Circles of learning* (4th ed.). Edina, MN: Interaction Books.

JONES, B.F., PALINCSAR, A.S., OGLE, D.S., and CARR, E.G. (eds.). (1987).

Strategic teaching and learning: Cognitive instruction in the content areas. Alexandria, VA: Association for Supervision and Curriculum Development.

KAGAN, S. (1994) *Cooperative learning.* San Juan Capistrano, CA: Kagan Cooperative Learning.

KING, A. (1990) Enhancing peer interaction and learning in the classroom through reciprocal questioning. *American Educational Research Journal* **27**, 664-687.

KRASHEN, S.D. (1985) *The input hypothesis: issues and implications.* London: Longman.

LONG, M.H. (1981) Input, interaction and second language acquisition. In Winitz, H. (ed.), *Native language and foreign language acquisition*, pp. 259-278. *Annals of the New York Academy of Sciences* 379.

LONG, M.H. (1983) Linguistics and conversational adjustments to non-native speakers. *Studies in Second Language Acquisition* **5**, 177-193.

LONG, M.H. and PORTER, P.A. (1985) Group work, interlanguage talk and second language acquisition. *TESOL Quarterly* **19**, 207-228.

MOHAN, B. (1986) *Language and content.* Reading, MA: Addison-Wesley.

NUNAN, D. (1990) The questions teachers ask. *JALT Journal* **12**, 187-202.

PALINCSAR, A.S., and BROWN, A.L. (1984) Reciprocal teaching of comprehension-fostering and monitoring activities. *Cognition*

and Instruction **1**, 117-175.

PICA, T., YOUNG, R. and DOUGHTY, C. (1987) The impact of interaction on communication. *TESOL Quarterly* **21**, 737-758.

REES-MILLER, J. (1993) A critical appraisal of learner training: theoretical bases and teaching implications. *TESOL Quarterly* **27**, 679-689.

RICHARDS, J.C. (1995) Easier said than done. In Hidalgo, A., Hall, D.W., and Jacobs, G.M. (eds.), *Getting Started: Materials Writers on Materials Writing*, 95-135. Singapore: SEAMEO Regional Language Centre.

SLAVIN, R.E. (1990) *Cooperative learning: theory, research and practice*. Englewood Cliffs, NJ: Prentice Hall.

SMITH, F. (1992) *To think*. London: Routledge.

SULLIVAN, P. and CLARKE, D. (1991) *Communication in the classroom: the importance of good questioning*. Geelong, Victoria: Deakin University.

SWAIN, M. (1985) Communicative competence: some roles of comprehensible input and comprehensible output in its development. In Gass, S.M and Madden, C.G. (eds.), *Input in second language acquisition*, pp. 235-253. Rowley, MA: Newbury House.

TSUI, A.B.M. (1985) Analyzing input and interaction in second language classrooms. *RELC Journal* **16**, 8-32.

TSUI, A.B.M. (1996) Reticence and anxiety. In K.M. Bailey and D. Nunan (eds.), *Voices from the language classroom*, 145-167.

Cambridge: Cambridge University Press.

VYGOTSKY, L.S. (1978) *Mind in society* (M. Cole, V. John-Steiner, S. Scribner, & E. Souberman, Eds.). Cambridge, MA: Harvard University Press.

WEBB, N. (1989) Peer interaction and learning in small groups. *International Journal of Educational Research* **13**, 21-39.

WENDEN, A. (1991) *Learner strategies for learner autonomy*. London: Prentice-Hall International.

WENDEN, A. (1997) Designing learner training: the curricular questions. In G.M. Jacobs (ed.). *Language classrooms of tomorrow: issues and responses*, 238-262. Singapore: SEAMEO Regional Language Centre.

WILKS, S. (1995) *Critical & creative thinking: strategies for classroom inquiry*. Armadale, New South Wales: Eleanor Curtain.

WU, K-Y. (1991) Classroom interaction and teacher questions revisited. Unpublished manuscript, Department of Curriculum Studies, University of Hong Kong.

YOUNG, R. (1988) Input and interaction. *Annual Review of Applied Linguistics* **9**, 122-134.

