Exploring the Chinese ESL Learners' Preferred Classroom Environment and Language Learning Strategies

Yanyan Gao and Gang Liang

Auburn University/Auburn, Alabama

Abstract:

Individualized Classroom Environment and Language learning strategies tests are conducted to test the Chinese ESL learners. Tests provide the most useful information for these purposes measure the Chinese ESL learners including preferred classroom environment and language learning strategies. The results showed that female and younger Chinese ESL learners utilize more Memory strategy than the male and older learners. The younger Chinese ESL learners also use more Cognitive strategy. Additionally, the ESL learners with a strong preference in Investigation in an individualized classroom environment are more likely to use Metacognitive and Cognitive language learning strategies, whereas the ESL learners with a strong preference for Personalization in their individualized classroom environment are less likely to use Memory, Affective and Social language learning strategies during their learning process. Finally, Chinese ESL learners with a strong preference for Differentiation in their individualized classroom environment are more likely to use Memory, Affective and Social language learning strategies during their learning process.

1. Introduction

1.1 Introduction of the Study

According to Open Doors report (2015), the number of international students at U.S. colleges and universities had the highest rate of growth in 35 years, increasing by ten percent to a record high of 974,926 students in the 2014/15 academic year. The United States hosts more of the world's 4.5 million globally college and university students than any other country in the world. In 2014/15, there were 88,874 more international students enrolled in U.S. universities and colleges compared to last year. India, China, and Brazil are the top three numbers of international students on U.S. campuses. Chinese students are a large group in the international students who studied in the United States.

According to Auburn University OIP (Office of International Programs) statistics, each year over 900 students and 300 scholars from over 80 nations choose Auburn University and participate Auburn experience. From 2011 to 2017, the number of international students has been increasing year by year. The top ten countries of origin are China, India, South Korea, Turkey, Bangladesh, Iran, Nepal, Saudi Arabia, Brazil and Nigeria. In the fall 2017, 1616 Chinese students enrolled at Auburn University, compared to over 2800 international students totally.

China is a large developing country in Asia, which has a completely different cultural, economic, and political origin from the United States. After coming to the US, the Chinese students may find many problems in their study. If their English needs improvement, many of them choose to study English in the ESL programs in the United States. The purpose of this study is to find out the differences of the Chinese ESL learners' preferred classroom environment and language learning strategies by gender and age. It further explored the relationship between the individualized classroom environment and language learning strategies of the Chinese ESL learners. The data was conducted by conducting individual student survey. The results were generated from a modified version of a combination with the Individualized Classroom Environment Questionnaire (preferred short form), the Strategy Inventory of Language Learning (Version 7.0) and a short demographic questionnaire. The goal was to try to analyze the correlations between the Chinese ESL learners' preferred classroom environment and language learning strategies. The answers to the overarching questions could help the teachers know more about the Chinese ESL learners' classroom learning needs and take more considerations into the classroom instruction methods and classroom environment. Finally, the Chinese ESL learners could enjoy their English study in America and thus succeed in their academical study.

1.2 Introduction of Current Study

The studies on the educational environment over the previous 40 years builds upon the earlier ideas of Kurt Lewin and Henry Murray and their followers. Lewin's (1936) study focused on the interaction with the personal characteristics, and educational environment is the major determinant of human behavior. Murray (1938) followed Lewin's idea and developed a need- press model for the interaction between the educational environment and personal characteristics. It is a closer study the classroom learning environment through the teachers and the students' perceptions, contrasted with the external observers and analyses. (Brophy and Good, 1984) Defining the classroom environment in terms of the shared perceptions of the teachers and students has advantages to get a deeper understanding of the classroom environment. The teachers and students are the direct participants of the classroom environment rather than the observers who may neglect or consider unimportant in the classroom. (Murray, 1938)

In America, over 40 years ago, Herbert Walberg and Rudolf Moos began seminal independent programs of research which attracted many followers all over the world. Walberg developed the widely-used Learning Environment Inventory (LEI) as part of their research in Harvard Project Physics. (Walberg and Anderson, 1968) Moos cooperated with Edison Trickett, developed Classroom Environment Scale (CES, Moos and Trickett, 1974; Trickett and Moos, 1973).

In Australia, Barry Fraser and his colleagues began their research which first focused on the student-centered classrooms and involved used of the Individualized Classroom Environment Questionnaire (ICEQ, Fraser, 1990; Fraser & Butts, 1982) The ICEQ focus on the teacher-centered classrooms. Fraser, subsequently, developed more classroom environment measurements for specific purposes, such as Science Laboratory Environment Inventory(SLEI), Constructivist Learning Environment Survey (CLES), and What Is Happening In this Class? (WIHIC).

The ICEQ assesses those dimensions which distinguish individualized classroom from conventional ones. The initial development of the ICEQ by A. John Rentoul and Barry Fraser (1979) was guided by the literature on individualized open and inquiry-based education; extensive interviewing of teachers and secondary schools students; and reactions to draft versions sought from selected experts, teachers, and junior high-school students. The final version of the ICEQ (Fraser, 1990; Fraser & Butts, 1982) contains 50 items, with an equal number of items belonging to each of the five scales. Each item is responded to on a five-point frequency scale with the Alternatives of Almost Never, Seldom, Sometimes, Often and Very Often. The scoring direction is reversed for many of the items. The five scales are Personalisation, Participation, Task Orientation, Innovation and Individualisation, which are classified by Moos's scheme. Although the long form of ICEQ has been used successfully for a variety of purposes, some researchers and teachers have reported that they would like to take less time to administer and score the measurement. Consequently, short forms of CES, ICEQ, and MCI were developed by Barry Fraser (1982) and Barry Fraser & Darrell Fisher (1983a).

Many previous studies related language learning strategies employed the Oxford's Strategy Inventory of Language Learning (SILL), for ESL (English as a Second Language)/EFL (English as a Foreign Language) learners, SILL version 7.0 was employed. The distinction between ESL and EFL comes from the native language of the country in which instruction is being given. An ESL classroom is one in which English is the primary national language. On the other hand, an EFL classroom is one in which English is not the native language. There is a variety of language strategies measurement tools available. Many research related to language learning strategies have conducted the research with the Strategy Inventory of Language Learning (SILL) (Version 7.0), which could also be seen in the following. Oxford (1990) developed the SILL based on the previous research and made language learning strategies more detailed. Oxford (1990) divided these strategies into six categories arguing that many language learning strategies can be used by language learners. Oxford (1990) also divided language learning strategies into direct learning strategies and indirect learning strategies. Direct learning strategies are involved in conscious mental processes, while indirect learning strategies support learning without involving the target language.

The primary purpose of this study was to find out the preferred individualized classroom environment and language learning strategies from the Chinese ESL learners in a southeastern research

institution in relation to gender and age. In addition, there was a focus on the relationship between the two above aspects from the Chinese ESL learners.

The following research questions were used to guide this study:

- 1. What are the differences of the preferred Individualized Classroom Environment between the Chinese ESL learners by gender and age?
- 2. What are the differences in language learning strategies between the Chinese ESL learners by gender and age?
- 3. What is the relationship between the College-level ESL learners' preferred individualized classroom environment and their language learning strategies?

2. Methods

2.1 Measure used

English Language Learning and Classroom Environment Survey was used in the study. The survey consists of three measures: Demographic Information, the preferred short form of Individualized Classroom Environment (ICEQ), and the version 7.0 of the Strategy Inventory for Language Learning (SILL).

The ICEQ assesses those dimensions which distinguish individualized classroom from conventional ones. The initial development of the ICEQ by Rentoul and Fraser (1979) was guided by the literature on individualized open and inquiry-based education; extensive interviewing of teachers and secondary schools students; and reactions to draft versions sought from selected experts, teachers, and junior high-school students. The final version of the ICEQ (Fraser, 1990; Fraser & Butts, 1982) contains 50 items, with an equal number of items belonging to each of the five scales. Each item is responded to on a five-point frequency scale with the options of Almost Never, Seldom, Sometimes, Often and Very Often. The five scales are Personalisation, Participation, Task Orientation, Innovation and Individualisation, which are classified by Moos's scheme.

Although the long form of ICEQ has been used successfully for a variety of purposes, some researchers and users have reported that they would like to take less time to administer and score the measurement (Galluzzi, Kirby, & Zucker, 1980; Kyle & McCutcheon, 1984). Consequently, short forms of CES, ICEQ, and MCI were developed by Fraser (1982) and Fraser & Fisher (1983) to satisfy three criteria. First, the total number of items was reduced to approximately 25 items to provide reduced testing and scoring time. Second, the short forms were designed to be hand scored. Third, short forms are likely to have adequate reliability for the many applications which involve averaging the perceptions of students within a class to obtain class means.

Many attempts have been made to develop instruments to measure learning strategies (Brown & Holtzman, 1967; Christensen, 1968; Cohen & Chi, 2004). The best known and most used inventory for measuring foreign and second language learning strategies is the Oxford Language learning strategies and Strategies Inventory for Language Learning (SILL).

SILL (Version 7.0) was developed by Oxford (1990) based on previous research and made language learning strategies more detailed. The questionnaire contains 50 items (ESL/EFL version) with six categories of strategies: Memory, Cognitive, Compensation, Metacognitive, Affective, and Social strategies. The questionnaire is self-scoring, and students rate themselves on a 5-point Likert scale. Oxford (1990) divided these strategies into six categories arguing that many language learning strategies can be used by language learners. Oxford (1990) divided language learning strategies into direct learning strategies and indirect learning strategies. Direct learning strategies use conscious mental processes, while indirect learning strategies support learning without involving the target language. Oxford (1990) developed the strategies and specific skills for the indirect and direct strategies.

2.2 Data Analysis Procedures

All collected data were analyzed by using SPSS-PC 22.0. The survey scales were tested for their reliability and yielded Cronbach alpha scores. Both descriptive and inferential statistics were used to analyze the collected data, and the analysis methods were chosen and employed based on each research question. The descriptive analyses were conducted to scrutinize demographic variables, and an independent sample t-test was used to explore differences of the five subscales of the classroom environment and the

six categories of the language learning strategies of male and female Chinese learners, respectively. The independent sample t-test was also used to explore the differences between the two sets of data with two age groups, that is, one who was younger than 23 years old and the other who was than 23 years old and over. In order to answer the aspects regarding the relationship between preferred classroom environment and language learning strategies, the canonical correlation was applied to investigate the relationship between the individualized classroom environment set and the language learning strategies set for all the Chinese ESL learners.

3. Results

3.1 Independence sample t-test

An independent sample t-test was used to examine the first two research questions, respectively. Alpha level was set at p equals to .05.

SPSS software was used to perform the descriptive statistics to examine the results of the ESL learners' opinions on their preferred individualized classroom environment. The five subscales of ICEQ used to measure the individualized classroom environment is a 5-point Likert scale, with the sum of each subscale is 25. The mean of the five subscales is Personalization (17.4), Participation (15.8), Independence (16.0), Investigation (17.6), Differentiation (16.2), respectively, which indicates that participants in this study have more preferences on Investigation and Personalization than Differentiation, Independence, and Participation.

SPSS software was used to perform the independent sample t-test to examine the differences of preferred individualized classroom environment based on their gender and age. Table 1 and 2 show the differences of preferred individualized classroom environment of Chinese ESL learners by gender and age.

Table 1
Summary of Variation in Individualized Classroom Environment by Gender

	Gender	N	Mean	Std. Deviation Std.	d. Error Mean	t	sig.(2-tailed)
Personalization	Male	289	17.4394	2.53667	.14922		_
	Female	131	17.2137	2.94568	.25737	.802	.423
Participation	Male	289	15.6886	2.55493	.15029		
	Female	131	15.9771	2.47282	.21605	-1.083	.280
Independence	Male	289	16.0035	1.99739	.11749		
	Female	131	16.0000	2.29380	.20041	.241	.809
Investigation	Male	289	17.5779	2.59038	.15238		_
	Female	131	17.5115	2.65552	.23291	.425	.671
Differentiation	Male	289	16.1107	1.88972	.11116		_
	Female	131	16.4351	2.20524	.19267	-1.54	5 .123

Table 2 Summary of Variation in Language Learning Strategies by Age

				Std.			
	Age	N	Mean	Deviation	Std. Error Mean	t	sig.(2-tailed)
Personalization	>= 23	42	16.6429	2.44771	.37769		
	< 23	378	17.4497	2.68385	.13804	-1.864	.063
Participation	>= 23	42	16.0000	2.87970	.44435		
	< 23	378	15.7540	2.49143	.12815	.597	.551
Independence	>= 23	42	15.9524	2.28412	.35245		
	< 23	378	16.0079	2.07229	.10659	163	.871

Investigation	>= 23	42	17.5476	2.08599	.32187			
	< 23	378	17.5582	2.66185	.13691	025	.980	
Differentiation	>= 23	42	16.5000	2.28729	.35294			
	< 23	378	16.1799	1.96236	.10093	.986	.425	

SPSS software was used to perform the independent sample t-test to examine the differences of strategy use between the male and female ESL learners and between less than 23 years old and older than 23 years old ESL learners. According to Oxford and Burry-Stock (1995), a mean score of all participants in the range of 3.5 to 4.4 (always or almost always used) and 4.5 to 5.0 (usually used) on a SILL item was considered to reflect high use of that strategy, 2.4 to 3.4 (sometimes used) medium use, and 1.0 to 1.4 (never or almost never used) and 1.5 to 2.4 (usually not used) low use. The descriptive results show that the most frequently used strategies by the Chinese ELS learners are Metacognitive (Mean=3.70) and Social (Mean=3.68) strategies, and then Compensation (Mean=3.45) and Cognitive (Mean=3.44) strategies, and the least used are Affective (Mean=3.26) and Memory (Mean=3.10) strategies. Table 3 and 4 show the differences of preferred individualized classroom environment of Chinese ESL learners by gender and age.

Table 3
Summary of Variation of Language Learning strategies by gender

				Std.			
	Gender	N	Mean	Deviation	Std. Error Mean	ı t	sig.(2-tailed)
Memory	Male	289	3.0469	.58701	.03453	-2.67	.008
	Female	131	3.2120	.58737	.05132		
Cognitive	Male	289	3.4276	.57845	.03403	946	
					.345		
	Female	131	3.4831	.50778	.04436		
Compensation	Male	289	3.4769	.63938	.03761	.714	.475
	Female	131	3.4300	.58688	.05128		
Metacognitive	Male	289	3.6647	.68496	.04029	-1.484	.139
-	Female	131	3.7684	.61387	.05023		
Affective	Male	289	3.2220	.72183	.04246	-1.75	.081
	Female	131	3.3537	.69676	.06008		
Social	Male	289	3.6724	.73056	.04297	.515	.607
	Female	131	3.7125	.75336	.06582		
Overall	Male	289	3.4124	.47900	.02818	-1.58	.115
	Female	131	3.4913	.46306	.04051		

Table 4
Summary of Variation of Language Learning Strategies by Age

				Std.			
	Age	N	Mean	Deviation	Std. Error Mea	an t	sig.(2-tailed)
Memory	>= 23	42	3.3757	.65480	.10104	3.239	.001
	< 23	378	3.0676	.57670	.02966		
Cognitive	>= 23	42	3.6071	.55131	.08507	1.996	.047
	< 23	378	3.4269	.55583	.02859		
Compensation	>= 23	42	3.5833	.42172	.06507	1.328	.185
	< 23	378	3.4489	.64065	.03295		

Metacognitive	>= 23	42	3.7381	.58837	.09079	.421	.674	
	< 23	378	3.6925	.67311	.03462			
Affective	>= 23	42	3.4087	.66075	.10196	1.391	.165	
	< 23	378	3.2469	.72075	.03707			
Social	>= 23	42	3.7421	.75994	.11726	.529	.579	
	< 23	378	3.6786	.73526	.03782			
Overall	>= 23	42	3.5786	.47321	.07302	2.043	.042	
	< 23	378	3.4213	.47335	.02435			

3.2 Canonical Correlation

Canonical Correlation Analysis was applied to investigate the following third research question. Alpha level was set at p equals to .05.

Two sets of variables are significantly associated by canonical correlation (Wilks' Lambda = 0.42112, F = 5.0, p = .000, <.001). Five canonical functions were generated, but only the first two canonical correlations were significant. The first canonical correlation coefficient is .65, p = 0.000; and the second canonical correlation coefficient is .90, p = 0.004, at the α =0.05 level. Table 5 and Table 6 showed the results of the first and the second significant canonical correlations, respectively.

Table 5
Standardized canonical coefficients, structure coefficients, and squared structure coefficients for canonical functions I

Variable Canonical Function				
	Coefficient	r_s	r_s^2	
ICEQ				
Personalization	05	42	.18	
Participation	14	47	.22	
Independence	30	66	.44	
Investigation	70	91	.83	
Differentiation	15	52	.27	
SILL				
Memory	.18	49	.24	
Cognitive	75	82	.67	
Compensation	46	69	.48	
Metacognitive	73	86	.74	
Affective	03	54	.29	
Social	11	70	.49	

Table 6
Standardized canonical coefficients, structure coefficients, and squared structure coefficients for canonical functions 2

Variable	Canonical Function			
	Coefficient	$r_{\rm s}$	r_s^2	
ICEQ				
Personalization	1.02	.84	.71	
Participation	14	.003	.000	
Independence	55	.03	.009	
Investigation	96	002	.000	
Differentiation	46	33	.11	
SILL				
Memory	.06	81	.66	
Cognitive	46	.20	.04	
Compensation	24	.16	.03	
Metacognitive	47	20	.04	
Affective	09	57	.32	
Social	06	84	.71	

N= 420. r_s =structure coefficient; r_s ²=squared structure coefficient

4. Discussion

An independent sample t-test first examined Chinese ESL learners' preferred individualized classroom environment in relation to gender and age in this study. No significant differences identified from the College-level ESL learners by gender and age. The participants were all Chinese students, the results showed that there was no significant difference between the male students and female students.

Another independent sample t-test was conducted to explore the Chinese ESL learners' strategy use and the difference of strategy use in relation to gender and age. The results showed the utilization Memory strategy showed significant differences between male and female Chinese ESL learners. Memory and Cognitive strategies also showed significant differences between the two different age groups. The female Chinese ESL learners utilized Memory strategies significantly more frequently than male Chinese ESL learners. The ESL learners who were younger than 23 years old utilized Memory and Cognitive strategies significantly more frequently than ESL learners who were older than 23 years old.

The result of canonical correlation revealed a significant canonical correlation of the Chinese ESL learners preferred individualized classroom environment and language learning strategies. To be more specific, the ESL learners with a strong preference in Investigation in an individualized classroom

environment are more likely to use Metacognitive and Cognitive language learning strategies, whereas the ESL learners with a strong preference for Personalization in their individualized classroom environment are less likely to use Memory, Affective and Social language learning strategies during their learning process. Additionally, Chinese ESL learners with a strong preference for Differentiation in their individualized classroom environment are more likely to use Memory, Affective and Social language learning strategies during their learning process.

5. Conclusion

One conclusion of this quantitative study was that the female Chinese ESL learners utilized Memory strategies significantly more frequently than male Chinese ESL learners. It is similar to the findings that Yabukoshi & Takeuchi's (2009) research to lower secondary language learners in Japan, which indicated that females reported more use of strategies than males. Additionally, the ESL learners who were younger than 23 years old utilized Memory and Cognitive strategies significantly more frequently than ESL learners who were older than 23 years old. It has a similar result with Mortazavi & Barjesteh (2016)'s study, which showed the significant different language learning strategies between the Freshmen and Seniors in an Iranian university, who are EFL learners. It is concluded that Memory strategy was utilized more by the female and younger Chinese ESL learners. It is also concluded that Cognitive strategy was used more by the younger learners.

Canonical correlation results showed that Chinese ESL learners' preferred classroom has significant canonical correlations with their language learning strategies. There are two significant canonical correlations between the two sets of variables. To be more specific, the ESL learners with a strong preference in Investigation in an individualized classroom environment are more likely to use Metacognitive and Cognitive language learning strategies, whereas the ESL learners with a strong preference for Personalization in their individualized classroom environment are less likely to use Memory, Affective and Social language learning strategies during their learning process. Additionally, Chinese ESL learners with a strong preference for Differentiation in their individualized classroom environment are more likely to use Memory, Affective and Social language learning strategies during their learning process.

The findings of this study were consistent with the literature and positive relationships between classroom environment and strategy use (Meece, et al., 1988). Classroom environment could influence language learners' learning strategies, and learning environment has an association with the motivation and strategies of language learners. (Bi,2013; Razak & Saeed, 2014)

Teachers are suggested to choose appropriate teaching techniques and create an appropriate classroom environment for Chinese ESL learners and encourage them to understand and apply certain language learning strategies to improve their language proficiency in an active learning way.

References

- Bi, X. (2015). Associations between psychosocial aspects of English classroom environments and motivation types of Chinese tertiary-level English majors. *Learning Environments Research*, *18*(1), 95-110.
- Fraser, B. J. (1982). Development of short forms of several classroom environment scales. *Journal of Educational Measurement*, 19(3), 221-227.
- Fraser, B. J. (1990). *Individualised Classroom Environment Questionnaire*. Melbourne, Australia: Australian Counsil for Educational research.
- Fraser, B. J. (1994) Research on classroom and school climate. In D. Gabel (ed) Handbook of Research on Science Teaching and Learning (pp. 493-541). New York: Macmillan.
- Fraser, B. J., Aldridge, J. M., & Adolphe, F. G. (2010). A cross-national study of secondary science classroom environments in Australia and Indonesia. *Research in Science Education*, 40(4), 551-571.
- Fraser, B. J., & McRobbie, C. J. (1995). Science Laboratory Classroom Environments at Schools and Universities: A Cross-National Study*. *Educational Research and Evaluation*, 1(4), 289-317.
- Fraser, B. J. (1998). 5.1 science learning environments: Assessment, effects and

- determinants. International handbook of science education, 527-564.
- Fraser, B. J. (2002). Learning environments research: Yesterday, today and tomorrow. In *Studies in educational learning environments: An international perspective* (pp. 1-25).
- Fraser, B. (2015). Classroom learning environments. In *Encyclopedia of Science Education* (pp. 154-157). Springer Netherlands.
- Fraser, B. J. (2012). Classroom learning environments: Retrospect, context and prospect. In *Second international handbook of science education* (pp. 1191-1239). Springer Netherlands.
- Fraser, B. J., & Butts, W. L. (1982). The relationship between perceived levels of classroom individualization and science-related attitudes. *Journal of research in Science Teaching*, 19(2), 143-154.
- Galluzzi, E. G., Kirby, E. A., & Zucker, K. B. (1980). Students' and teachers' perceptions of classroom environment and self-and others-concepts. *Psychological Reports*, 46(3), 747-753.
- Kim, Y. Y. (2001). Becoming intercultural: An integrative theory of communication and cross-cultural adaptation. Sage.
- Kyle, D. W., & McCutcheon, G. (1984). Collaborative research: Development and issues. *J. Curriculum Studies*, 16(2), 173-179.
- Mortazavi, M. A., & Barjesteh, H. (2016). Exploring EFL Learners' Preferences, Perceived Needs, and Perceptions about Language Learning Strategies. *Journal of Language Teaching and Research*, 7(6), 1128-1135.
- Murray, H. A. (1938). Explorations in personality.
- Oxford, R. L. (1990). Language learning strategies (Vol. 210). New York: Newbury House.
- Oxford, R. L. (1994). *Language learning strategies: An update*. ERIC Clearinghouse on Languages and Linguistics, Center for Applied Linguistics.
- Oxford, R. L. (1994). Language learning strategies: An update. ERIC *Digest*. (Report No. EDO-FL-95-02). ERIC Clearinghouse on Language and Linguistics: Washington, D.C. (ERIC Document Reproduction Service No. ED376707).
- Oxford, R., & Burry-Stock. (1995). Assessing the use of language learning strategies worldwide with the ESL/EFL version of the Strategy Inventory for Language Learning (SILL). *System*, 23, 153-175.
- Oxford, R. L., Cho, Y., Leung, S., & Kim, H. (2004). Effect of the presence and difficulty of task on strategy use: An exploratory study. *International Review of Applied Linguistics*, 42, 1-47.
- Oxford, R. L., & Cohen, A. D. (1992). Language Learning Strategies: Crucial Issues of Concept and Classification. *Applied Language Learning*, *3*, 1-35.
- Oxford, R. L., Lavine, R. Z., & Crookall, D. (1989). Language learning strategies, the communicative approach, and their classroom implications. *Foreign Language Annals*, 22(1), 29-39.
- Razak, N. A., & Saeed, M. A. (2014). Collaborative writing revision process among learners of English as a foreign language (EFL) in an online community of practice (CoP). *Australasian Journal of Educational Technology*, 30(5).
- Yabukoshi, T., & Takeuchi, O. (2009). Language learning strategies used by lower secondary school learners in a Japanese EFL context1. *International Journal of Applied Linguistics*, 19(2), 136-172.