

1-1-2011

*Transforming Learning: Teaching & Advocacy and ESL at the Crossroads: Selected Proceedings of Both the 2009 and 2010 Michigan Teachers of English Speakers of Other Languages Conferences Grand Rapids, Michigan, October 9-10, 2009 and Ypsilanti, Michigan, October 1-2, 2010*

James M. Perren  
*Eastern Michigan University*

Kay M. Losey

Dinah Ouano Perren  
*Eastern Michigan University*

Allison Piippo

Follow this and additional works at: <http://commons.emich.edu/mitesol>

---

#### Recommended Citation

Perren, James M.; Losey, Kay M.; Perren, Dinah Ouano; and Piippo, Allison, "*Transforming Learning: Teaching & Advocacy and ESL at the Crossroads: Selected Proceedings of Both the 2009 and 2010 Michigan Teachers of English Speakers of Other Languages Conferences Grand Rapids, Michigan, October 9-10, 2009 and Ypsilanti, Michigan, October 1-2, 2010*" (2011). *MITESOL Proceedings*. Book 1.  
<http://commons.emich.edu/mitesol/1>

This Book is brought to you for free and open access by the Department of World Languages at DigitalCommons@EMU. It has been accepted for inclusion in MITESOL Proceedings by an authorized administrator of DigitalCommons@EMU. For more information, please contact [lib-ir@emich.edu](mailto:lib-ir@emich.edu).

**‘Transforming Learning: Teaching & Advocacy’  
*and*  
‘ESL at the Crossroads’**

**Selected Proceedings  
of both the 2009 and 2010  
Michigan Teachers of English Speakers of Other Languages  
Conferences**

**October 9-10, 2009 and October 1-2, 2010**

**Editors**

James M. Perren

Kay M. Losey

Dinah Ouano Perren

Allison Piippo

2011

Transforming Learning: Teaching & Advocacy  
and ESL at the Crossroads  
Selected Proceedings of both the 2009 and 2010  
Michigan Teachers of English Speakers of Other Languages  
Conferences  
Grand Rapids, Michigan, October 9-10, 2009  
and Ypsilanti, Michigan, October 1-2, 2010

Editors:

James M. Perren, Kay M. Losey, Dinah Ouano Perren,  
and Allison Piippo

[www.mitesol.org](http://www.mitesol.org)

2011

Design: James M. Perren

Cover Photographs © Christen M. Pearson, 2011

and Eastern Michigan University, 2010

© Michigan Teachers of English Speakers of Other Languages

Copyright for the individual papers remains vested in the  
contributors to whom applications for rights to reproduce should  
be made.

**ISBN:**

**The Selected Proceedings of both the 2009 and 2010  
MITESOL Conferences**

Contents

<b>Preface</b>	<i>The Editors</i>	4
<b>Research</b>		
Challenges of Implementing Station Teaching Between ELL Teachers and General Education Teachers and Its Implication on Classroom Practice	<i>Grace Chin-Wen Chien</i>	7
Who Gains More?: A Case of Motivation and Corrective Feedback in ESL Classes	<i>Baburhan Uzum</i>	19
<b>Issues in TESOL</b>		
Introducing Humane Education to TESOL Curricula	<i>Andrew Domzalski and Boguslaw Gatarek</i>	40
Things Your TESOL Prof Never Told You	<i>Christen M. Pearson</i>	56
Critical Thinking and Global Issues in the ESL Writing Classroom	<i>Marian Gonsior</i>	77
Where Did It Go? The Hide and Seek of Language Attrition and the Freeze Tag of Language Stagnation	<i>Christen M. Pearson</i>	90

## Selected Proceedings of both the 2009 & 2010

### MITESOL Conferences

#### Preface

On October 9-10, 2009, The Michigan Teachers of English to Speakers of Other Languages (MITESOL) met on the campus of Grand Valley State University, in Grand Rapids, Michigan, for its annual fall conference. The conference, chaired by President elect Casey L. Gordon, offered numerous talks, workshops, and poster sessions, as well as a Friday evening reception, Saturday luncheon and business meeting, Special Interest Group (SIG) meetings, and publisher exhibits.

Special guests for the conference were two plenary/featured speakers and the keynote speaker. Susan E. Reed (a bilingual Immigration Law attorney with the Michigan Poverty Law Program) was the plenary speaker for Friday evening, delivering a session on legal issues facing immigrant students titled, *Immigrant Students' Rights: Present Challenges and Future Opportunities*. Dr. Nkechyi Ezech (Aquinas College) presented a Saturday morning plenary address about Meeting Literacy Needs of Culturally and Linguistically Diverse Students. Dr. Donald Freeman (University of Michigan) completed the highlighted presentations agenda with a piece titled, *'The Elephant and the Worm': How Schools Lose Track of the Work of ESL Teaching*.

The second conference reflected in this publication took place on October 1-2, 2010, at the Eastern Michigan University campus in Ypsilanti, Michigan. The conference, chaired by President elect, Dr. Wendy Wang, dazzled MITESOLers as at previous conferences with 63 breakout sessions including paper presentations, workshops, panel discussions, teaching/tutoring demonstrations and poster sessions, as well as a Friday evening reception, Saturday luncheon and business meeting, Special Interest Group (SIG) meetings, and publisher exhibits.

Special guests for the conference were two plenary/featured speakers and the keynote speaker. Joan Morley (Professor Emerita) was the featured speaker for Friday evening and gave an exclamatory talk titled, *Thirty-Five Years of MITESOL, and Still Moving On!* The Saturday morning plenary address was presented by Linda Forward from the Michigan Department of Education. Her discussion was titled, *Our Kids, Our Future*, and examined development of specific educational policies. Dr. Jodi Crandall (University of Maryland) provided the Saturday afternoon keynote address titled, *The TESOL*

*Professional at the Crossroads: Meeting the Challenges with Our Strengths.*

Similar to previous years, MITESOL is continuing the service of offering a selection of papers from its conferences. This particular edition of the conference proceedings reflects a unique opportunity to combine a range of topics from two conference venues and two separate conference themes. This volume is organized into the main areas of (1) Research and (2) Issues in TESOL. Within each area, papers are presented in alphabetical order by first authors' surnames and chronologically.

The first section of this volume is Research. We are delighted to include two papers in this section that were both delivered at the 2010 MITESOL Conference at Eastern Michigan University. In an article titled, *Challenges of Implementing Station Teaching Between ELL Teachers and General Education Teachers and Its Implication on Classroom Practice*, Grace Chin-Wen Chien describes the practice, shortcomings and strengths of station teaching with English Language Learners (ELLs) in two elementary schools. In the second article, *Who Gains More?: A Case of Motivation and Corrective Feedback in ESL Classes*, Baburhan Uzum reports on the relationship between learners' motivation and their response (uptake) following feedback in an ESL class at a major Midwestern university.

The second section of this volume is Issues in TESOL and begins with two papers presented at the 2009 MITESOL Conference in Grand Rapids. The first article by two authors, Andrew Domzalski and Boguslawa Gatarek, titled *Introducing Humane Education to TESOL Curricula*, explains the need for incorporating humane education into the professional preparation of ESL teachers. The second article in this section, *Things Your TESOL Prof Never Told You*, written by Christen M. Pearson, describes the crucial foundation of first language literacy upon which a second language is built and explores the range of variables - prenatal, perinatal, and postnatal - that can negatively impact language learning. The third article written by Marian Gonsior is titled, *Critical Thinking and Global Issues in the ESL Writing Classroom*. This contribution to the 2010 MITESOL Conference at Eastern Michigan University discusses a quest to develop the "perfect" English for Academic Purposes (EAP) writing class using authentic materials gathered from Internet. The article, *Where Did It Go? The Hide and Seek of Language Attrition and the Freeze Tag of Language Stagnation*, reflects a second piece in this edition written by Christen

M. Pearson. This final article of this section was also presented at the Eastern Michigan University MITESOL Conference in 2010.

As with previous volumes, the papers have been printed in the final form in which they were submitted, often following requested revisions by the editors. Only minor editing has taken place by the editors before printing of the volume. Also as before, copyright and responsibility for the contents of all papers reside with the individual authors. Therefore, all questions, requests for reprints, and permission to reproduce should be directed to the individual authors whose email addresses appear at the end of each paper in the author note.

We would like to express our gratitude to the many people involved in completing this project. The authors contributed significantly as presenters and then by converting their talks into manuscripts. Each editor has played a specific and much-needed role. Kay Losey again generously gave her time mentoring authors. With her expertise, Kay provided key editing assistance with several manuscripts. Dinah Ouano Perren also helped to mentor authors in the writing process this year while managing her employment responsibilities teaching ESL at Eastern Michigan University and at Henry Ford Community College. Dinah also took an active role in the copy editing phase. Allison Piippo took time to also mentor authors while taking classes at Eastern Michigan University in the MA: TESOL Program. James Perren completed numerous tasks associated with this project by mentoring authors and communicating with multiple editors and other MITESOL community members to understand the editorial process established by Christy Pearson.

We sincerely hope you enjoy reading the different papers available in this combined volume. Hope to see you at the MITESOL Conference in Kalamazoo in 2011.

James M. Perren (Eastern Michigan University)

Kay M. Losey (Grand Valley State University)

Dinah Ouano Perren (Eastern Michigan University, Henry Ford  
Community College)

Allison Piippo (Eastern Michigan University)

*The Editors*

*September, 2011*





# **Challenges of Implementing Station Teaching Between ELL Teachers and General Education Teachers and Its Implication on Classroom Practice**

Grace Chin-Wen Chien

---

**“Transforming Learning: Teaching & Advocacy” and  
“ESL at the Crossroads”**

**Selected Proceedings of both the 2009 and 2010  
Michigan Teachers of English to Speakers of Other  
Languages Conferences**

October 9-10, 2009 and October 1-2, 2010

[www.mitesol.org](http://www.mitesol.org)

Editors:

James M. Perren, Kay Losey, Dinah Ouano Perren, Allison  
Piippo

# **Challenges of Implementing Station Teaching Between ELL Teachers and General Education Teachers and Its Implication on Classroom Practice**

Grace Chin-Wen Chien

*University of Washington*

## **Abstract**

This article describes the practice, shortcomings and strengths of station teaching with English Language Learners (ELLs) in two elementary schools in Wendell (pseudonym) in the United States. This study aims to provide suggestions and recommendations for language teachers interested in implementing station teaching in their classrooms. This article is divided into three parts. First, the literature review focuses on definitions of station teaching and its benefits for both learners and teachers. Second, the observations of station teaching in two elementary schools are described and the following questions are answered: How was station teaching implemented in these two schools? How many stations were established? What learning areas (reading, writing, phonics, word instruction) were focused on in the station teaching? Who was involved in the station teaching? What problems occurred during its implementation? The third part relates the findings to the broader research questions and the literature on the subject of station teaching.

## **Literature Review**

This literature review focuses on definitions of station teaching, its benefits for learners and teachers, and advice for ELL and general education teachers in carrying out station teaching. Station teaching is a type of co-teaching. Co-teaching is defined as two or more teachers delivering instruction to a diverse group of students in a single classroom environment (Murawski, 2005; Rea & Connell, 2005; Walsh & Jones, 2004; Keefe, Moore, & Duff, 2004). In station teaching, each teacher is responsible for planning and delivering instruction but their teaching content differs. The students rotate between stations where they work on certain assignments or receive instruction from the teachers. The teacher repeats the lesson for each group of students as

they come through their station. The content taught to each group is the same but the method of instruction may vary based upon the needs of each group (Cook, 2004; Friend, 2008; Murawski, 2005).

How should ELL and general education teachers collaborate and implement station teaching? Ideally, the teachers should be trained in co-teaching (DelliCarpini, 2009). O’Loughlin (2003) suggests that ELL teachers could provide support to ELLs in the classroom through the design of cooperative activities, cooperative groups, or station teaching. General education and ELL teachers should co-develop a lesson plan that is responsive to English language learners through incorporation of explicit goals for ESL development into curriculum and assessment planning processes, the negotiation of a shared understanding of their roles and responsibilities, and the establishment of systematic mechanisms for monitoring, evaluating, and giving feedback (Davison, 2006; Dieckmann, 2004).

## **Methods**

Purposeful sampling and convenience sampling are used in this study because the researcher wishes to discover, understand, and gain insight and therefore must select a sample from which the most can be learned (Merriam, 1998). The researcher did an internship in a school district office in Wendell in the Fall of the 2009 academic year. The two schools were collaborating schools where ELL and general education teachers collaborated through the use of co-teaching models.

In this study, observational field notes provide the major research data. Observation is the most natural way of collecting data, as it allows researchers to gain an understanding of observed behaviors (Bartels, 2005; Richards & Morse, 2007). The researcher observed the ELL teachers’ classroom practice as well as their co-planning and debriefing meetings with the instructional coach. The researcher later analyzed the data after organizing it into more abstract units of information or themes (Creswell, 2009; Hatch 2006; LeCompte & Schensul, 1999; Marshall & Rossman, 2006).

## **The Current Situation of Station Teaching in the Two Schools**

Table 1 reveals the differences and similarities in the station teaching in the two schools in terms of grade level, language focuses, and types of stations. There are two classes in Roger School: one for first graders and the other for third and fourth graders. The class at

Donald School was for second graders. The language focuses in these three classes were reading and word instruction.

Table 1. *Comparisons and Contrasts in Station Teaching*

School	Grade	Focus	Stations
Roger	3 <sup>rd</sup> and 4 <sup>th</sup>	Reading	<ol style="list-style-type: none"> <li>1. guided reading: general education teacher with students</li> <li>2. independent reading and reading journal</li> <li>3. worksheet assignment</li> <li>4. guided reading: ELL teacher with students</li> </ol>
Roger	1 <sup>st</sup>	Reading, Word Work	<ol style="list-style-type: none"> <li>1. guided reading: ELL teacher</li> <li>2. read to self</li> <li>3. read to another</li> <li>4. computer/listen to story</li> <li>5. phonics and word recognition: general education teacher</li> <li>6. word work (vocabulary work)</li> </ol>
Donald	2 <sup>nd</sup>	Reading, Word Work	<ol style="list-style-type: none"> <li>1. word making: ELL teacher</li> <li>2. listening center</li> <li>3. computer center</li> <li>4. independent worksheet</li> <li>5. sight word recognition: parentvolunteer</li> </ol>

ELL and general education teachers met once a week for co-planning and for reflection on the co-teaching from that week. At Roger School the ELL teacher worked with general education teachers. In both classes, ELL teachers did the guided reading with ELLs. For the reading instruction, books categorized by proficiency levels determined by the district were used in the stations. The teachers first

focused on one reading strategy for a few weeks and then moved on to another strategy while the old strategy was reinforced. Both new and old reading strategies were emphasized in stations. While the general education teacher in the class of fourth and fifth graders led one group for guided reading, the general education teacher in the class of first graders focused upon phonics and word recognition. At Donald School one ELL teacher, one parent volunteer, and one general education teacher worked together at the same time in a single class. Students rotated to different stations for twenty minutes at a time while the teachers remained at the same station. The general education teachers would give a signal to the students when it was time for a station rotation.

Based on the researcher's observation of the classroom practice and debriefing meetings between the teachers and instructional coach, the ELL and general education teachers faced three major issues: accountability, grouping, and monitoring. First, in terms of accountability, the teachers clearly explained the tasks for each station and set out their expectation that the students should take responsibility for their own learning. However, some students sometimes were lazy and not on task. Some boys would spend the first five minutes just choosing a book in the "independent reading" or "reading to someone" station and did not totally concentrate on reading at all. They did not take responsibility for their own learning as the teachers had expected of them. Second, grouping of the students was a big issue, too. Some students were put in the same group, but they refused to read to one another. Some boys had arguments with other group members in the station, too. Third, both the ELL and general education teachers were working with students in different stations, so it was very difficult for them to monitor students' performance in the stations they were not at.

## **Discussion and Implications**

ELL teachers and general education teachers in two collaborating elementary schools in Wendell implemented station teaching for reading and vocabulary instruction. Issues that arose included unclear teachers' roles and responsibilities, students' learning accountability and outcomes, grouping, and monitoring. In this section, based on the observation of station teaching in these three classrooms, the discussions and implications focus on parents' involvement, roles and responsibilities, station designs, and assessments.

### ***Parents' Involvement in Station Teaching***

In Donald School, one parent volunteer was engaged in the station teaching. He worked with two low-proficiency level students on identifying sight words. He showed one word card to the students and they had to say the word out loud. The one who said it received the card as a winning point. Once one student said the word correctly the parent would move on to the next word without letting the other student participate and use the word. The parent did not use the chance to teach the other student how to pronounce the word or to use decoding strategies to pronounce it, so the other student just sat there and watched his partner playing the word card game. That student did not have the chance to learn how to pronounce the word or practice his decoding skills, so he could not identify the sight words as required.

Many people accept the “native speaker fallacy” and believe that as long as you can speak English, you can *teach* English (Phillipson, 1992). However, English ability does not equal teaching ability. That parent could speak English, but he did not have any teaching competence. He had proficiency in the target language in terms of listening, speaking, reading, and writing, but he knew neither how to create instructional opportunities adapting to learners nor how to use effective communication techniques to foster active inquiry, collaboration, and supportive interaction in the classroom. As described above, the parent assistant had some problems in his teaching method. He should have taken the opportunity to review the pronunciation, the meaning, and usage of the words. It is clear that in order to effectively implement station teaching in English instruction, ELL and general education teachers should be trained in co-teaching (DelliCarpini, 2009). Moreover, parent volunteers also need to be trained first before they are invited to help in station teaching. The instruction or training should focus on the content to be covered in classes and some instructional and assessment strategies. Therefore, the ELL teachers, general education teachers, and parents involved in the co-teaching should have a shared understanding of the explicit goals of curriculum and assessment planning as well as systematic mechanisms for monitoring, evaluating, and giving feedback (Davison, 2006; Dieckmann, 2004).

### ***Teachers' Roles and Responsibilities***

ELL teachers and general education teachers co-taught in these three classrooms. The ELL teacher worked at one station and the

general education teacher worked at another station. However, the division of roles and responsibilities between them was unclear. In the beginning of the implementation of the station teaching, the class was a little bit in chaos. Students in independent projects or working with pairs would talk too loudly or were not on task. The ELL teachers and general teachers were too busy working with their own students at their stations without paying sufficient attention to the rest of class. Students who had technical problems with tapes or computers yelled out. Each teacher was waiting for each other to give the signal for students to move on to the next station. The researcher and the instructional coach reported what they had observed to the teachers at the co-planning and debriefing meetings and told them that unclear teachers' roles and responsibilities resulted in students' being off-task or not sure about what they should do next. The teachers reflected that they did not know who should be in charge of classroom management in general. Later however, they did get together and redefine their roles and responsibilities.

Roles and responsibilities should be clearly understood and communicated from the beginning (Benoit, 2001; Davison, 2006; Villa, Thousand, & Nevin, 2009). Both teachers should interchange the roles of "leader/supporter" throughout the lesson to ensure equality and responsibility (Benoit, 2001). Teachers in such situations should be careful to communicate with each other daily regarding progress and problems in order to avoid duplication of effort and ensure they stay "on the same page." Having a co-teaching handbook is ideal, because co-teachers or those who get involved in the station teaching will have explicit procedures to follow, and a clear understanding of their roles and responsibilities.

### ***Station Choices***

Different stations were designed in these three classrooms so as to provide students with different needs and learning strategies. Teachers can set up the room so that small groups of students rotate through stations using varied modalities to learn key concepts (Gregory, 2007; Kryza, Duncan & Stephens, 2010). Four to five stations can be designed including a technology station, a station for independent reading, a station for a challenging task, and one or two stations for remedial instruction.

Computers provide ready access to written, audio, and visual materials relevant to the language and culture being studied (Kern,

2006). Computers and tapes are great supplementary teaching materials, because students have the chance to listen to reading materials or learn from the web sites. Learners can listen to the CDs provided by the textbook publishers to review the lessons or do the interactive exercises on the computer. In addition, a lot of on-line interactive web sites can be used in the technology station. The following sites are useful for younger learners:

Starfall.com: <http://www.starfall.com/>

Children's storybook online: <http://www.magickeys.com/books/>

However, problems with computers and tapes sometimes occurred in these classes and students would ask the teachers for help. The teachers then had to leave their own students behind in order to fix the technological problems. In the technology station, teachers or student helpers should check the computers and tapes in the stations before the station teaching begins.

In the independent reading station, teachers can select the picture or level books based on the specific topics that are being covered in the class' instruction. For example, a beginning level book such as Eric Carl's *From Head to Toe*, an intermediate level book such as Simms Taback's *There Was An Old Lady Who Swallowed A Fly*, or a more advanced book such as Taro Gomi's *My Friends*, can be put in the independent reading station when the topic currently being covered in the class is "animals."

One of the strengths of the station teaching in these three classrooms was provision of remedial instruction whereby the ELL teachers worked with students with low proficiency levels. Such remedial education could provide additional instruction and support for students with lower proficiency levels.

### ***Assessments and Check-Up***

There was a major problem in the implementation of station teaching in these three classrooms. Students sometimes were not on task, particularly in the independent reading or writing stations. Both ELL and general education teachers were busy working with students at their own stations. When the allocated time was up, the students moved on to the next stations. Teachers did not know how students did in those other stations however. In debriefing meetings and co-planning

meetings with general and ELL teachers, an ELL coach suggested that the general education teacher of the first grade should have the performance checklist. Before each rotation, the teacher asked students to self-evaluate their performance on 1-2-3 criteria: one finger up for getting to the station on time, the second finger up for completing the task, and the third finger up for lining up quietly. By doing so, students began to take responsibility for their own learning.

Teachers should check students’ performance at each station by using checklists or exit cards. A performance checklist or rubric should be provided for students to self-evaluate themselves and empower them to take accountability for their own learning and to develop a sense of ownership and control over their personal learning progress (Chapman & King, 2008; Gregory, 2007; Kryza et al, 2010). Teachers can use such a checklist to evaluate their students’ performance in the station teaching, too. The following is a checklist example from Gregory (2007).

Table 2. *Center Checklist*

Work Habits	Not Yet	Sometimes	Most of the Time
Stays on Task			
Gets Work Done on Time			
Uses Materials Appropriately			
Completes Tasks			
Follows Rules at the Station			
Uses Time Wisely			

(Gregory, 2007, p. 143)

**Conclusion**

Collaboration between general education and ELL teachers or ELL teachers with content-based teachers is encouraged for effective classroom practice for ELLs (Davison, 2006; DelliCarpini, 2009; Dove & Honigsfeld, 2010; Li & Protacio, 2010). Co-teaching increases teacher responsiveness, knowledge, and opportunities to use research-based interventions as well as their capacity to problem solve and individualize learning, and increase empowerment of their co-teaching partners (Villa et al, 2009). In this article, station teaching for reading and word instruction was implemented by ELL teachers and general

education teachers in two collaborating elementary schools in Wendell. However, station teaching implementation led to the various issues discussed above.

The fact that the station teaching observational data collected in this study covers only three classrooms in two elementary schools in Wendell indicates that this is a limitation of this study. The findings cannot be generalized to all ELL classrooms. Nevertheless, as a modest strength to be pointed out, the instructional coach's feedback and observations on station teaching and teachers' reflections on their own classroom practice supplemented my classroom observations. This article focuses on the implementation of station teaching by general education and ELL teachers and the challenges and problems they faced. It also provides suggestions for language teachers who are interested in implementing station teaching in their classrooms. Zehr (2006) found that team teaching between ELL teachers and general education teachers closed the language gaps of secondary ELLs in St. Paul through teaching them English beyond simple conversational skills and using 'academic English'. A future study should focus on the influence of station teaching on ELLs' achievement. That type of inquiry could answer the following research question, "How and to what extent does station teaching influence students' learning outcomes particularly in reading comprehension and word recognition in standardized tests?" The answers to these questions can hopefully shed additional light on this issue.

### **Author Note**

Grace Chin-Wen Chien teaches at University of Washington. Correspondence concerning this article should be addressed to Grace Chin-Wen Chien (chinwenc@ms24.hinet.net).

## References

- Bartels, N. (2005). Researching applied linguistics in language teacher education. In Bartels, N. (Ed.). *Applied linguistics and language teacher education*. New York, NY: Springer Science and Business Media, Inc.
- Benoit, R. (2001). Team teaching tips for foreign language teachers. *The Internet TESL Journal*, 7(10). Retrieved from <http://iteslj.org/Techniques/Benoit-TeamTeaching.html>
- Chapman, C. & King, R. (2008). *Differentiated instructional management: Work smarter, not harder*. Thousand Oaks, CA: Corwin Press.
- Cook, L. (2004). *Co-teaching: Principles, practices, and pragmatics*. Paper presented at New Mexico Public Education Department Quarterly Special Education Meeting, Albuquerque, NM.
- Creswell, J. W. (2009). *Research design: Qualitative, quantitative, and mixed methods approach*. Thousand Oaks, CA: Sage Publications.
- Davison, C. (2006). Collaboration between ESL and content teachers: How do we know when we are doing it right? *International Journal of Bilingual Education and Bilingualism*, 9(4), 454-475.
- DelliCarpini, M. (2009). Dialogues across disciplines: Preparing English-as-a-second-language teachers for interdisciplinary collaboration. *Current Issues in Education*, 11(2). Retrieved from: <http://cie.ed.asu.edu/volume11/number2/>
- Dieckmann, J. (2004). Planning for English language learner success: Alternative responses in teaching learning to reducing achievement gaps. *Intercultural Development Research Association*. January 2004 Newsletter. Retrieved from [http://www.idra.org/IDRA\\_Newsletters/January\\_2004\\_Self\\_-\\_Renewing\\_Schools\\_Bilingual\\_Education/Planning\\_for\\_English\\_Language\\_Learner\\_Success/](http://www.idra.org/IDRA_Newsletters/January_2004_Self_-_Renewing_Schools_Bilingual_Education/Planning_for_English_Language_Learner_Success/)
- Dove, M., & Honigsfeld, A. (2010). Develop teacher leadership and enhance student learning. *TESOL Journal*, 1(1), 3-22.
- Friend, M. (2008). Co-teaching: Creating successful and sustainable programs. Paper presented at National Association of State Directors of Special Education Satellite Conference. Retrieved from <http://dese.mo.gov/divspced/EffectivePractices/documents/NASDS>

- Gregory, G. H. (2007). *Differentiated instructional strategies: One size doesn't fit it all*. Thousand Oaks, CA: Corwin Press.
- Hatch, J. A. (2002). *Doing qualitative research in education settings*. Albany, NY: State University of New York Press.
- LeCompte, M. D., & Schensul, J. J. (1999). *Designing and conducting ethnographic research*. Walnut Creek, CA: AltaMira.
- Keefe, E. B., Moore, V. & Duff, F. (2004). The four “knows” of collaborative teaching. *Council for Exceptional Children*, 36(5), 36-42.
- Kern, R. (2006). Perspective on technology in learning and teaching languages. *TESOL Quarterly*, 40(1), 183-210.
- Kryza, K., Duncan, A., & Stephens, S. J. (2010). *Differentiation for real classrooms*. Thousand Oaks, CA: Corwin.
- Li, G., & Protacio, M. S. (2010). Best practices in professional development for teachers of ELLs. In G. Li & P. A. Edwards (Eds.), *Best practice in ELL instruction* (pp. 353-380). New York, NY: The Guilford Press.
- Marshall, C., & Rossman, G. B. (2006). *Design qualitative research* (4<sup>th</sup> ed.). Thousand Oaks, CA: Sage Publications.
- Merriam, S. B. (1998). *Qualitative research and case study applications in education*. San Francisco, CA: Jossey-Bass.
- Murawski, W. W. (2005). Addressing diverse needs through co-teaching: Take baby steps! *Kappa Delta Pi Record*, 41(2), 77-82.
- O'Loughlin, J. (2003). Collaborative instruction in elementary school: Push-in vs. pull out: A look into two models of teaching ELLs in elementary school. *The ELL Outlook*, 2(4), 3-6.
- Peterson, K. (2007). Can you help me out? *Teaching English as a Second/Foreign Language Newsletter*, 6(2), 3.
- Phillipson, R. (1992). *Linguistic imperialism*. Oxford, NY: Oxford University Press.
- Rea, P. J. & Connell J. (2005). Minding the fine points of co-teaching. *The Education Digest*, 71(1), 29-35.
- Richards, L., & Morse, J. M. (2007). *Readme first for a user's guide to qualitative methods*. Thousand Oaks, CA: Sage Publications.

Villa, R. A., Thousand, J. S., & Nevin, A. I. (2009). *A guide to co-teaching*. Thousand Oaks, CA: Corwin Press.

Walsh, J. M., Jones, B. (2004). New models of cooperative teaching. *Council for Exceptional Children, 36*(5), 14-20.



## **Who Gains More?: A Case of Motivation and Corrective Feedback in ESL Classes**

Baburhan Uzum

---

**“Transforming Learning: Teaching & Advocacy” and  
“ESL at the Crossroads”**

**Selected Proceedings of both the 2009 and 2010  
Michigan Teachers of English to Speakers of Other  
Languages Conferences**

October 9-10, 2009 and October 1-2, 2010

[www.mitesol.org](http://www.mitesol.org)

Editors:

James M. Perren, Kay Losey, Dinah Ouano Perren, Allison  
Piippo

# **Who Gains More?: A Case of Motivation and Corrective Feedback in ESL Classes**

Baburhan Uzum

*Michigan State University*

## **Abstract**

The present action-research-study investigated the relationship between learners' motivation and their response (uptake) following feedback in an ESL class at a major Midwestern university. In SLA literature, several studies have adopted a cognitive perspective suggesting that learning a language is manifested by the mental processes like noticing and attention, and many others have emphasized the need of a socio-psychological perspective, viewing learning within a social context. The gap between the former and the latter was highlighted in Ellis and Sheen (2006) which invited scholars to do more research on socio-psychological factors that may influence learners' receptivity to corrective feedback. In the present study, motivation, being among the aforementioned factors (Deci & Ryan, 1985), has been explored within a mixed-design case study. The participants (N=13) are intermediate ESL students, and the researcher is an ESL teacher. The analysis indicated that different types (intrinsic/extrinsic) and levels (high/low) of motivation influence learners' uptake following feedback. Theoretical and practical implications are suggested.

## **Introduction**

In the past few decades, there have been several different approaches to the study of second language acquisition (SLA). While some have adopted a cognitive perspective assuming that learning a language is manifested by the mental processes like noticing, attention, inhibition, etc. (e.g., Gass, 1997; Gass & Varonis, 1994), many others have emphasized the need of a socio-cultural perspective carrying language beyond the source of input and viewing it as a resource for participation in activities within a social context (e.g., Zuengler & Miller, 2006). This study aims to mediate a compromising ground between cognitive and socio-cultural perspectives bridging the gap in between. This gap was also highlighted in the review article of Ellis

and Sheen (2006) in which they claimed that recasts do not take place in a social vacuum and their effectiveness might be influenced by socio-psychological factors that determine learners' receptivity to them. Following the work of Ellis and Sheen (2006) and Askildson (2008) which investigated the effects of motivation on the processing of recasts, the current study also investigated the influences of learners' motivation on the processing of corrective feedback, hypothesizing that differential types and levels of motivation may influence learners' response (uptake) to corrective feedback.

This study hypothesizes that learners with higher motivation will concentrate more on their errors and would like to learn the correct form for future occasions. On the other hand, those with lower motivation may not be very enthusiastic during the interaction and thus may not pay attention to the correction, having a limited access to their cognitive abilities, since some psychological factors such as objectives and reasons to learn are not yet fulfilled. Therefore, learners with high cognitive abilities like working memory, attention and intelligence may not be very successful in recalling their errors and as they may not use their actual potential because of the psychological barrier-*low motivation* (making a sense of why they are doing this/ what good will come out of this/ why they should commit their time and energy into this). Since the role of motivation is an under-researched area in corrective feedback literature, this action research study explored influences of different types of motivation on learners' response to corrective feedback measured by uptake production.

## **Literature Review**

### ***Corrective Feedback***

The negotiations between native and nonnative speakers have been investigated in experimental settings or classroom observations in the last few decades. The findings of these studies suggest that learners benefit not only from the positive evidence provided during the conversation, but also the corrective feedback received either implicitly or explicitly (Ayoum, 2001). A brief definition for corrective feedback is made by Long (1996) as information following an error produced by the language learner. In this regard, corrective feedback is either *implicit*—in the form of recasts or *explicit* which is provided in the form of metalinguistic information such as explanation of a rule. While recasts are advocated for their non-interruptive role, metalinguistic feedback, on the other hand, is claimed to be more effective for long

term acquisition of target structures than implicit forms of feedback (Ellis, Loewen & Erlam, 2006). Lyster and Ranta (1997) define uptake as “a student’s utterance that immediately follows the teacher’s feedback and that constitutes a reaction in some way to the teacher’s intention to draw attention to some aspect of the student’s initial utterance” (p.49). Similar to their study, the current study also uses uptake as an indication of *noticing* which is operationalized in this study as the threshold at which the learner compares old and new information and realizes the difference.

In the past few decades, SLA research has concentrated on social identity (e.g., Peirce, 1995), individual differences (e.g., Robinson, 2001), learners’ perceptions of corrective feedback (e.g., Mackey, Gass, & McDonough, 2000) as well as cultural differences between these perceptions (e.g., Schulz, 2001) and influences of teacher’s background (e.g., Mackey, Polio, & McDonough, 2004). The review article of Ellis and Sheen (2006) especially indicated the need for more research on socio-psychological factors that may influence learners’ receptivity to corrective feedback, in which they concluded that recasts do not take place in a social vacuum, and their effectiveness might be influenced by socio-psychological factors that determine learners’ receptivity to them.

### ***Motivation Influencing the Receptivity to Corrective Feedback***

A recent study by Askildson (2008) made a lightning retort to Ellis and Sheen’s (2006) invitation investigating the impact of learners’ motivation on the perception of recasts in the acquisition of grammatical gender in L2 French. In order to explore the question whether motivation plays a role in how recasts are perceived by beginning language learners, Askildson conducted an experimental study. Participants were first administered the motivation questionnaire of Gardner (1985), then they were randomly assigned to two conditions: (a) the experimental group (the written recast group) and (b) the control group. During the treatment sessions, the experimental group was provided with written recasts following an error. The researcher tested the hypothesis as to whether there is a positive correlation between learners’ motivation and their perception of recasts. According to the statistical analysis, she found no interaction between learners’ motivation and their overall treatment gains. She concluded that motivation does not play a role in the way recasts are perceived by beginning language learners.

Considering the limitations of Askildson's (2008) study in terms of its design, context, and scope, further studies might have different results. One of the issues that could be reconsidered in the design of her study is the use of an experimental design to test a psychological construct which is dynamic and subject to change under certain circumstances. The best example for this is the *mortality effect* that Askildson (2008) study has experienced losing half of the total participants during the experiment. In order to have a more naturalistic approach, an observational design could be used in which the learners do not have to make any extra effort, and the researcher does not interfere with the natural interaction. As learners might behave differently in an experimental setting compared to the actual context of learning, learners may not exhibit their genuine performance, which may mislead the researcher when merging these data with their responses in the motivation questionnaire. In other words, learners answer the questionnaire reflecting their interest to learn a language, but will perform in the experiment probably because of external factors such as rewards or extra credit.

Therefore, the present study is carried out in the classroom context with the goal of avoiding the confusion between *motivation for learning* and *motivation for experiment*. Another difference from the study of Askildson is that, instead of Gardner's (1985) socio-education model, Deci and Ryan's (2001) *self-determination theory* is used as a motivation model, which gives the researcher to evaluate learners' motivation using not only *high* or *low* measures but also the source of motivation as *extrinsic* or *intrinsic motivation* which is presented briefly in the next section.

### ***Self-Determination Theory***

Self-Determination theory was proposed by Deci and Ryan in 1985. In this theory they divided motivation into two general types; *intrinsic* and *extrinsic* motivation. In order to build up a theoretical background to address this construct, they proposed a Self-Determination Continuum (SD Continuum) which ranges from *amotivation* to *intrinsic motivation*.

### ***Types of Motivation***

The construct of motivation has been explored under several subcategories. One of these subcategories is *extrinsic motivation*; the

metaphor—*the horse running after a carrot*—defining motivation (Brown, 2001) has naturally fit into this category and coexisted with *intrinsic motivation*. While the former term is explained with the desire to learn a second language in order to attain a certain career and achieve educational and financial goals, the latter represents the enthusiasm to learn a language stemming with a positive attitude towards the community of its speakers.

According to the Deci and Ryan (2000b) model, *amotivation* refers to a situation in which learners are not motivated to act; they do not want to learn the language, or they behave passively. Extrinsic motivation, on the other hand, reflects a wide range of behavior from external rewards to synthesis with self. According to this model, the subdivisions of extrinsic motivation are (a) *external regulation* which includes the behavior performed to fulfill an external demand or to receive an award, (b) *introjected regulation*, related to motivation to exhibit ability or maintain feelings of worth, which is a relatively controlled form of regulation including behavior performed to avoid guilt or to attain ego enhancements such as pride, or self-confidence, (c) *regulation through identification* refers to consciously valuing a goal or action, finally (d) *integrated regulation*, the most autonomous form within extrinsic motivation in which integration happens when learners internalize the goals, and accept them also considering their values and needs.

Within the same Deci and Ryan (2000b) Model, *intrinsic motivation* refers to acting for the sake of such internal factors as enjoyment and satisfaction. In a language learning context, when learners are intrinsically motivated, they will seek for ventures, take more risks (Beebe, 1983), be more willing to exert effort and act for getting the fun or satisfaction from the learning process (Ryan & Deci, 2000a, 2000b). The process of intrinsic motivation has been further explored and finally divided into subcategories in several studies in Noels (2003).

According to the categorization by Noels (2003): (a) *intrinsic motivation-knowledge* refers to the desire to do an activity for the pleasure of gaining knowledge, (b) *intrinsic motivation-accomplishment* refers to the desire to have the sense of achievement, and (c) *intrinsic motivation-stimulation* reflects the excitement and enjoyment of performing a task (playing a game of being in a competitive task). These three subcategories of *intrinsic motivation* along with *amotivation* and *extrinsic motivation* are investigated in the

present study using the *Language Learning Orientations Scale* by Noels and colleagues (2000, 2001, 2003).

This study hypothesizes that there is a positive correlation between learners' motivation and the amount of uptake they produce (the higher their motivation, the more uptake they produce). Moreover, different types and levels of motivation may have an influence on learners' response patterns: (a) learners with more extrinsic motivation may be more concerned about structural accuracy to have high grades in their exams, and thus attend to morpho-syntactic corrections producing more uptake following such corrections, and (b) learners with intrinsic motivation may be more concerned about native-like pronunciation and fluency to convey their message, and thus attend to lexical/phonological/semantical corrections, producing more uptake after these corrections. Within the frame of these hypotheses the research questions are formulated as follows:

1. What is the relationship between the type/level of learners' motivation and the uptake they produce?
2. How do learners with intrinsic/extrinsic motivation respond to morpho-syntactical/lexical/phonological/semantical corrections?

## **Method**

### ***Participants***

This study was carried out at a major Midwestern university. A total number of 13 intermediate level ESL learners were recruited in the course of two months. The participants were enrolled at the English Language Center (ELC) of the participating university where the researcher also worked as an ESL teacher. One of the four intermediate level classes was randomly selected on the basis of the assumption that there would be ample amount of corrective feedback episodes in an intermediate level class in comparison to more advanced level classes. The students were from South Korea, China and Saudi Arabia and came to the U.S. for a semester or an entire year within an exchange program between universities. Their age range was 18-45 and there were 10 male, 3 female students. They had learnt English in EFL settings, and most of them came to the U.S. for the first time. The instruction was mainly student-centered, and the classroom activities were communication oriented.

## ***Materials and Procedure***

A motivation questionnaire (see Appendix A) was administered (Noels, 2003). In addition to the questionnaire used to collect data in order to explore the degree and the type of learners' motivation, video-recorded classroom observations were carried out with a video-camera positioned in front of the classroom. The questionnaire included twenty-one statements making up seven factors: *amotivation*, *external regulation*, *introjected regulation*, *identified regulation*, *knowledge*, *accomplishment* and *stimulation*. These variables were assessed using a seven point Likert scale ranging from strong disagreement (1) to strong agreement (7). The observations were conducted once or twice a week in three different skill classes (listening & speaking, reading & writing, and content) with three different teachers. The data collection took one and a half months with nine hours of recording. After collecting the observation data, the learners completed the language background survey (see Appendix B) and the motivation questionnaire.

## ***Data Analysis***

The feedback episodes were identified and transcribed by the researcher. Regardless of the type of feedback (recast, metalinguistic explanation, etc.) provided by the teacher, the learners' responses following the correction (lexical, semantical, morpho-syntactical or phonological) and the number of uptake they produce were coded and analyzed. According to the definition of Lyster and Ranta (1997) the categorization of uptake was made as follows:

1. *Repetition*: The learner repeats the correction of the teacher.

**S:** That *were* great.

**T:** That *was* great

**S:** *was*

2. *Incorporation*: Student's repetition of the correct form in a longer sentence.

**S:** That *were* wonderful

**T:** *was*

**S:** That *was* a wonderful day

3. *Self-repair*: Student's self correction of the initial error.

**S:** I *goed* to the Meridian Mall yesterday.

**T:** Pardon?

**S:** I *went* to the Meridian Mall yesterday.

4. *Peer-repair*: Peer correction provided by a student other than the student, and the Interlocutor either acknowledges or repeats the correction.

**S:** I *buy* a t-shirt last week.

**I:** You *bought* a t-shirt.

**S:** Ah Yes. Bought.

Any occurrence of one of these four contexts was considered as *uptake with repair*, and the absence of one of these situations but acknowledging the correction, saying “yes”, was considered as *uptake-need repair*. If there were not any of these instances, there was *no uptake*, but *topic continuation*. Consider a hypothetical student who received corrective feedback from the teacher 87 times during the recorded sessions. While he produced 56 instances of uptake, he did not produce any uptake in 31 of them, but continued the interaction. In order to calculate the uptake score of this student, the ratio of uptake—56 to the number of total corrections—87 was calculated as 64 %. In addition to the total number of uptake, the instances of uptake including lexical, morpho-syntactical, semantic and pronunciation reformulations were calculated independently in order to address the second research question whether learners with different motivational orientations pay more attention to a specific feature than others.

In the analysis of the collected data, SPSS 15.0 (Statistics Package of Social Sciences) program was used. Learners were grouped according to their scores in the category of intrinsic motivation. Following this procedure two groups were formed: (a) a low intrinsic motivation group (LIM) and (b) a high intrinsic motivation group (HIM). The participants' uptake scores were analyzed using descriptive statistics and inferential statistics (independent samples t-test). In addition to the analysis of difference, a correlation analysis was administered with the whole population in order to find out whether their motivation scores correlated to their uptake scores.

With regard to student errors and teachers' feedback, it is important to note that the current study did not investigate the absolute

number of student errors and the number/type of teacher feedback followed. Instead, the number of student turns containing a meaningful message and long enough to have the potential to possess an error was analyzed. As the dependent variable was the instances of uptake, the decisions about the type of learners' error and the type of teachers' feedback are beyond the scope of this study, yet can be investigated in a subsequent study. It is also important to keep in mind that the sample size in this action research study (N=13) is relatively small for strong claims. Therefore, the findings are interpreted to tell the story of a single ESL class and describe the methodology adopted to understand the effects of learners' motivation on the processing of corrective feedback. In future studies, teachers and researchers can use this study as a starting point to understand their classroom, students, and data.

The quantitative data obtained through observations and the questionnaires were supported by the qualitative data provided by the explanation of some instances during the observation as well as the informal conversations with one of the teachers regarding his/her opinions about the learners' motivation and their behavior in the classroom. Acknowledging that the teachers' opinions about the learners might be subjective and might fail to reflect the reality, it is a reliable source regarding how the learner was perceived by an outsider, and this information was compared with learners' responses to the questionnaire.

## Results

Learners' responses to the questionnaire were analyzed with respect to the seven factors mentioned in the previous section. As the scores of intrinsic motivation were used as the grouping variable, learners were ordered according to their scores in this category. Intrinsic motivation included three factors: *knowledge*, *accomplishment* and *stimulation*. The highest possible score in the intrinsic motivation category was 63, and learners' responses were between 18 and 60. The mean score was identified as the division line ( $M=44.76$ ,  $SD=11.29$ ). Six learners below the average were grouped as LIM (low intrinsic motivation) and seven learners were grouped as HIM (high intrinsic motivation) learners. Table 1 and Figure 1 show the mean scores for LIM and HIM groups under each factor. Though their extrinsic motivation scores showed similarity, LIM and HIM groups showed statistically significant differences under the three categories: *knowledge*, *accomplishment* and *stimulation*.

Table 1. *Mean Scores for Each Category*

Participants	LIM	HIM
N	6	7
Amotivation	10.6	9.5
External	13.6	15.7
Introjected	12.3	13.8
Identified	14.6	17.2
Knowledge	12.1	16.2
Accomplish	11.6	17.7
Stimulation	11.8	18.5

Figure 1 shows the visual illustration of the mean scores for each factor.

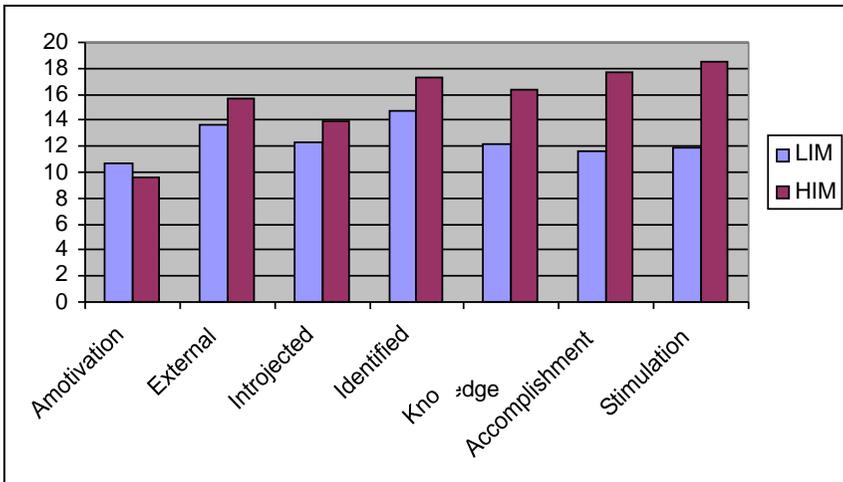


Figure 1. *Motivation Scores for LIM and HIM Groups.*

The next stage of the study was to merge the responses to the motivation questionnaire with observational data. The analysis included four hours of record with a total of 165 student turns. Table 3 shows the distribution of student turns, errors, and the number of uptake. The difference between LIM and HIM in each category (errors, uptake-need

repair, and uptake with repair) was calculated using t-test. The levels of significance are also reported in Table 2.

Table 2. *Frequency of Turns with Student Error and Student Uptake Followed by Teacher Feedback*

	Total student turns			Errors			Uptake-need repair			Uptake with repair		
	Mean	SD	Sig	Mean	SD	Sig	Mean	SD	Sig	Mean	SD	Sig
LIM (N=103)	17.17	8.23	.04*	7.83	5.07	.148	3.67	2.16	.011*	3.17	2.71	.384
HIM (N=62)	8.86	4.98		4.29	3.03		.86	1.06		2.00	1.91	

\* Mean Difference is significant at the 0.05 level.

The number of turns, errors, and instances of uptake are illustrated by the graph in Figure 2.

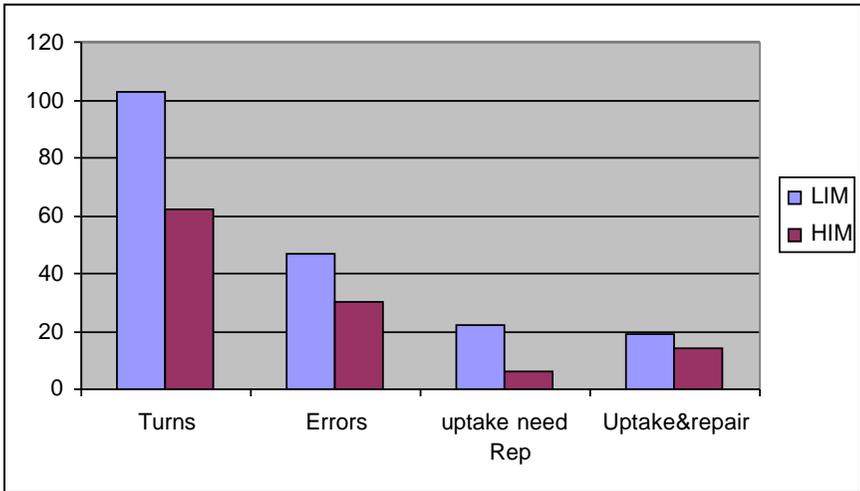


Figure 2. *Total Turns with Error, Uptake-Need Repair & Uptake With Repair*

According to the statistical findings shown in Table 4, the LIM group (M=17.17, SD=8.23) took greater number of turns compared to the HIM group (M=8.86, SD=4.98). This difference is statistically significant  $t(11)=2.243, p < .05$ ; it also represented a medium sized effect  $r = .56$ . The analysis of errors yielded the result that the LIM

group (M=7.83, SD=5.07) produced more errors than the HIM group (M=4.29, SD=3.03). Another significant finding is that the LIM group (M=3.67, SD=2.16) produced more uptake that needs repair (acknowledgment) following the teacher’s feedback compared to the HIM group (M= .86, SD=1.06). This finding also suggests a significant difference  $t(11)= 3.048, p < .05$ , resulting in a large sized effect  $r = .67$ . In the category of uptake with repair, the HIM and LIM groups do not exhibit significant mean differences. These results indicated an unbalanced distribution of turns between the LIM and the HIM group of students. Therefore, it was necessary to analyze the number and percentage of errors with respect to the number of turns and the number of uptake with respect to the number of errors. To illustrate, instead of the number of uptake by LIM students, the rate of uptake in the turns they produced were analyzed.

Table 3. *Number and Percentage of Errors and Uptake According to the Motivation Groups*

	Total student turns			Errors			Uptake-need repair			Uptake with repair		
	N	%	Sig	N	%	Sig	N	%	Sig	N	%	Sig
LIM	103	62%	.04*	47	45%	.148	22	46%	.011*	19	40%	.384
HIM	62	38%		30	48%		6	20%		14	46%	

As Table 3 shows, LIM students took 62% of the total turns and their error rate is 45%, while HIM students took 38% of the turns with 48% error rate. This means that they made 48% erroneous utterances in the turns they took. Since this was an intermediate level class, it was anticipated to observe one or two errors of any type in a single turn. The LIM group produced 22 (46%) uptake-need repair and 19 (40%) uptake with repair following the teacher’s correction. The HIM group, on the other hand, produced 30 (48%) errors, and produced 6 (20%) uptake need repair and 14 (46%) uptake indicating a statistically significant difference from the LIM group regarding the rate of uptake-need repair.

In addition to the t-tests carried out to investigate the influences of high and low intrinsic motivation on learners’ uptake production, a correlation analysis was conducted to explore whether the level of motivation correlated with the number of uptake produced. Table 4

shows the correlations between the values of intrinsic motivation and the number of uptake.

Table 4. *Correlations Between the Number of Uptake and Learners' Intrinsic Motivation*

	Turns	Errors	Uptake-need Repair	Uptake with Repair
Intrinsic Motivation	-.499	-.594*	-.666*	-.503
Sig (2 tailed)	.083	.032	.013	.080

\* Correlation is significant at  $p=0.05$  level.

The correlation analysis indicated a significant negative correlation between learners' intrinsic motivation and the number of errors ( $r = -.59, p < .05$ ) as well as the number of uptake-need repair they produced following a correction ( $r = -.66, p < .05$ ). These findings suggested that the higher the intrinsic motivation, the lower number of errors and uptake-need repair learners produced. The final stage of the data analysis was the comparison of learners' motivation and the type of correction to which they produced uptake. Table 5 shows the t-test results of the distribution of uptake according to error and motivation groups.

Table 5. *Distribution of Uptake According to the Correction and Motivation Groups*

	Following a morpho-syntactic Correction		Following a lexical correction		Following a phonological correction		Following a semantic correction			
	Turns	Errors	N	Sig	N	Sig	N	Sig	N	Sig
LIM	103	47	12	.028*	6	.829	14	.309	9	.209
HIM	62	30	3		6		8		4	

\* Mean Difference is significant at the p=0.05 level

These findings indicated a significant difference between LIM and HIM groups in terms of the mean scores of uptake following a morpho-syntactic correction. The LIM group (M=12) produced more uptake responding to a morpho-syntactic correction than the HIM group (M= 3). This difference is statistically significant,  $t(11)=2.530$ ,  $p= .028$  with a large sized effect  $r= .60$ . Following a phonological correction, the LIM group (M=14) also produced more uptake than the HIM group (M=8). This difference is not statistically significant but has a small sized effect  $r= .30$ . As for the semantic corrections, the LIM (M=9) produced more uptake than the HIM group (M= 4) with a small sized effect  $r= .37$ .

## Discussion

The present study aimed to investigate the relationship between learners' motivation and the number of uptake they produce following a correction within a case study of an ESL class. The quantitative findings produced following responses to the research questions.

1. What is the relationship between the type/level of learners' motivation and the uptake they produce?

Learners' motivation was investigated with a language questionnaire developed by Noels *et al* (2000). In contrast to Askildson's (2008) study, the research findings suggested a relationship in which LIM students took greater number of turns, made more errors and produced more uptake-need repair following a correction in comparison to HIM students.

2. How do learners with intrinsic/extrinsic motivation respond to morpho-syntactical/lexical/phonological/semantical corrections?

The statistical findings suggested a relationship between intrinsic motivation and number of uptake produced as a response to morpho-syntactic corrections, phonological corrections and semantic corrections, in all of which the LIM group produced more uptake than the HIM group.

This study aimed to achieve triangulation between the data gathered through the questionnaire and the interview data with one of the teachers about their opinions concerning the learners' motivation. In the interview, the teacher reflected learners' motivation and their performance during the classes. I acknowledge that these opinions could be subjective; however, they might also give qualitative evidence to interpret learners' motivation from the teacher's perspective. The teacher's comments about the HIM group were in the direction that they were placed correctly in terms of their cultural interest, positive attitude and curiosity to learn more. However, her comments for the LIM members raised some concerns about the accuracy of grouping. The teacher mentioned some LIM members to be very motivated, hardworking, quiet but willing to communicate, caring about grades and accuracy. Considering that learners' motivation is too complicated to measure by outsider's perspectives or self-reports, it can be argued that the teacher had the ability to observe learners' extrinsic motivation, which was found to be similar among all the participants. However, intrinsic motivation could be less reflected in performance and may not be possible to measure through observation. The accuracy of measures in motivation research merits further investigation.

The next stage of analysis was the coding of feedback episodes in which learners may or may not produce uptake following the teachers' correction. In the present analysis, I have not addressed the issues of what types of feedback (recast, metalinguistic, etc.) teachers used to correct the learners' errors. However, the coding of errors and identifying the types of uptake is a complicated issue and needs further investigation. Since the participating institution was following a communication oriented program in an ESL (English as a second language) setting, there were some concerns which might be related to the scope of this study and might also extend our knowledge of uptake and other affective variables. The issues raised here can be addressed to revise the ways teachers teach and offer corrective feedback. These points are briefly discussed below.

On the contrary to Askildson's (2008) study which suggested no relation between motivation and corrective feedback, the current study pointed to a relation between learners' intrinsic motivation and their production of uptake. One of the interesting findings of this study is that the LIM group took more turns compared to the HIM group. This finding is contradictory to the previous literature as learners with high intrinsic motivation were assumed to participate more during classes. Previous research indicated that learners with high intrinsic motivation take more risks, venture new structures and engage in interactions more often than low intrinsic motivation students (Beebe, 1983). The contradictory results of this study could be explained by several factors such as the reliability issues of the questionnaire in which learners self-reported their opinions or the teachers' history with the students. As the teachers had their own judgments about who should be encouraged more to participate and who were already doing fine in classes, they had a tendency to call on the students with low interest in the material and with low intrinsic motivation. The statistical analysis indicated that all of the students who scored to be in the LIM group were frequently addressed by the teacher, and thus they ended up taking a greater number of turns during the classes. Thus, the number of turns showed not only the instances in which the learners took the floor with their own willingness but also those when they were assigned by the teachers. Future studies can explore the quality of learners' responses by looking at turns volunteered by learners per se or assigned by the teacher.

In this data set, there were enough instances of turns and errors, but a limited number of uptakes. As the teachers used more implicit feedback (less intrusive) types (Philp, 2003), the learners produced less uptake following this type of correction, lending further support to Lyster and Ranta, 1997; Philp, 2003; Ellis, Loewen, & Erlam, 2006. As Ellis et al (2006) maintains, explicit corrections are less frequent in a classroom setting, but most likely to result in learners' uptake rather than implicit correction types. Accordingly, in this data set, explicit correction types were not as frequent as implicit correction types. This could be due to practicality and time limitations. When the teacher gave a single explicit correction like a rule explanation or a metalinguistic comment, she spent most of the valuable class time first attracting students' attention to the content, then bringing them back to the form and finally warming them up again for the content. Therefore, teachers seemed to prefer implicit feedback types "hoping that some of them are receptive enough to benefit from the subtle corrections" as one of the teachers noted in an informal conversation. Therefore, this data set also

confirmed the findings of Philp (2003) in terms of the abundance of recasts and the scarcity of uptake followed in the feedback episodes.

As the teacher might be using multiple corrections at a time, or use different feedback types overlapping each other, the decisions to code these episodes were complicated, and merits further investigation. This study attempted to conceptualize motivation and corrective feedback using observational data. Future studies can follow discourse analysis to explore classroom interaction and how it might be influenced by learners' different motivations and orientations.

The learners came from different language backgrounds, and their L1 was different from the teacher. The only ground on which they could communicate was English. Therefore, when they were interacting with the teacher, their main objective was to express themselves to the teacher. This resulted in abundant instances of negotiation of meaning rather than the form. Though learners' reading and writing levels might be good enough for this level, their pronunciation was not always intelligible to the teacher. Therefore, teachers might have chosen to maintain the interaction without interrupting it and decided not to correct pronunciation errors unless they were crucially significant for their lesson objectives.

The HIM group produced less uptake when compared to the LIM group, and thus the feedback episodes they were engaged in were more likely to result in *topic continuation*. The reasons for their tendency to continue the topic rather than acknowledging, repeating or incorporating the correction might be because of the still intrusive nature of uptake in a natural conversation. Giving priority to the successful maintenance of the interaction, high intrinsic motivation learners seemed to focus on conveying their message and choose not to interrupt the conversation to produce uptake. Therefore, while uptake has been regarded as the indication of noticing and the production of pushed output (Lyster & Ranta, 1997), topic continuation also deserves some attention in terms of the circumstances in which it takes place and its contributions to the social context of interaction.

One of the most important pedagogical implications suggested in this paper is that teachers should have the awareness that when they are interacting with students asking questions (any type of question—display, managerial, rhetorical, closed, open, etc.), students will be on the plane of meaning and will respond accordingly. For example, when a student is asked, “What did you do during the weekend?” his/her answer might be: “My weekend is wonderful. I go to Chicago and buy

a lot of clothes.” An ESL teacher might tend to provide corrective feedback on verb tenses here: “Oh! You went to Chicago and bought a lot of clothes?” and the student responds “Yes!” In this typical interaction, the teacher and the student are clearly on two different planes— *meaning* and *form*. Instead of simply repeating the student’s utterance, the teacher can align with him/her here and acknowledge the topic initiated and possibly ask for elaboration (maybe still giving implicit correction) such as “Oh! What kind of clothes did you buy? I bet you *bought* some good winter coats.” The student might be more likely to see the correct use of tenses here and can be primed by the teacher’s prompt “Yes! I *bought* good winter shoes, too.”

## **Conclusion**

The present action research study attempted to investigate the relationship between learners’ motivation and the number of uptake they produce following teacher’s correction. The claims of this study are by no means deterministic or predictive; however, they display an example case of 13 ESL students and their responses to corrective feedback as well as the methodology adopted to understand the research context. Given the variation and the contradictory results found in this study, it is important for teachers and researchers to further investigate the ways to measure learners’ motivation, how it interplays with corrective feedback, how it unfolds in language classrooms, and other psycholinguistic variables that might be determining learners’ receptivity to corrective feedback.

## **Directions for Further Research**

The present study provoked more questions than it has provided answers. Considering the complexity of research on motivation in the classroom context, future studies can benefit from more descriptive strategies and analytical frameworks such as discourse analysis, teacher and student journals, and stimulated recall of classroom discourse. One of the major implications of this study is that an investigation of classroom language does not have to be conducted only by linguists or discourse analysts, but any teacher can carry out action research, theorize their practice, and seek ways to improve their instruction.

## Author Note

Baburhan Uzum, Michigan State University Ph.D. candidate in Second Language Studies. Correspondence concerning this article should be addressed to Baburhan Uzum (baburhan@msu.edu).

## References

- Askildson, V. (2008). How learners' affective variables impact their perception of recasts in the acquisition of grammatical gender in L2 French. Retrieved from <http://www.coh.arizona.edu/AWP/AWP15/AWP15%5BDasse%5D.pdf>
- Ayoun, D. (2001). The role of negative and positive feedback in the second language acquisition of the passe compose and imparfait. *The Modern Language Journal*, 85(227-243).
- Beebe, L. M. (1983). Risk taking and the language learner. In H. W. S. a. M. H. Long (Ed.), *Classroom Oriented Research in Second Language Acquisition: New Perspectives*: Newbury House Publisher.
- Brown, D. (2001). *Principles of language learning and teaching*. NJ: Prentice Hall Regents.
- Deci, E. L., & Ryan, R. M. (1985). *Intrinsic motivation and self-determination in human behavior*. New York: Plenum.
- Ellis, R., Loewen, S., & Erlam, R. (2006). Implicit and explicit corrective feedback and the acquisition of L2 grammar. *Studies in Second Language Acquisition*, 28, 339-368.
- Ellis, R., & Sheen, Y. (2006). Reexamining the role of recasts in second language acquisition. *Studies in Second Language Acquisition*, 28, 575-600.
- Gardner, R. C. (1985). *Social psychology and second language learning: The role of attitudes and motivation*. London: Edward Arnold.
- Gass, S. (1997). *Input, interaction, and the second language learner*. Mahwah, NJ: Erlbaum.
- Gass, S., & Varonis, E. M. (1994). Input, interaction, and second language production. *Studies in Second Language Acquisition*, 16, 283-302.

- Long, M. (1996). *The role of linguistic environment in second language acquisition*. In W. C. Ritchie & T. K. Bhatia (Eds.), *Handbook of Language Acquisition* (Vol. 2, pp. 413-468). New York: Academic Press.
- Lyster, R., & Ranta, L. (1997). Corrective feedback and learner uptake: Negotiation of form in communicative classrooms. *Studies in Second Language Acquisition*, 20, 37-66.
- Mackey, A., Gass, S., & McDonough, K. (2000). How do learners perceive interactional feedback? *Studies in Second Language Acquisition*, 22, 471-497.
- Mackey, A., Polio, C., & McDonough, K. (2004). The relation between experience, education and teachers' use of incidental focus on form techniques. *Language Teaching Research*, 8(3), 301-327.
- Noels, K. A. (2003). Learning Spanish as a second language: Learners' orientations and perceptions of their teachers' communication style. *Language Learning*, 53(1), 97-136.
- Noels, K. A., & Clu'ement, R. (2001). Intrinsic, extrinsic, and integrative orientations of French Canadian learners of English. *Canadian Modern Language Review* 57(3), 424-444.
- Noels, K. A., & Pelletier, L. G. (2000). Why are you learning a second language? Motivational orientations and self-determination theory. *Language Learning*, 50(1), 57-85.
- Peirce, B. N. (1995). Social identity, investment, and language learning. *TESOL Quarterly*, 29(1), 9-31.
- Philp, J. (2003). Constraints on noticing the gap: Nonnative speakers' noticing of recasts in NS-NNS interaction. *Studies in Second Language Acquisition*, 25, 99-126.
- Robinson, P. (2001). Individual differences, cognitive abilities, aptitude complexes and learning conditions in second language acquisition. *Second Language Research*, 17(4), 368-392.
- Ryan, R., & Deci, E. (2000a). Intrinsic and extrinsic motivations: Classic definitions and new directions. *Contemporary Educational Psychology*, 25(1), 54-67.
- Ryan, R., & Deci, E. (2000b). Self-determination theory and the facilitation of intrinsic motivation, social development and well-being. *American Psychologist*, 55, 68-78.

- Schulz, R. A. (2001). Cultural differences in student and teacher perceptions concerning the role of grammar instruction and corrective feedback: USA- Colombia. *The Modern Language Journal*, 85(2).
- Zuengler, J., & Miller, E. R. (2006). Cognitive and sociocultural perspectives: Two parallel SLA worlds? *TESOL Quarterly*, 40(1), 35-58.



## **Introducing Humane Education to TESOL Curricula**

Andrew Domzalski and Boguslaw Gatarek

---

**“Transforming Learning: Teaching & Advocacy” and  
“ESL at the Crossroads”**

**Selected Proceedings of both the 2009 and 2010  
Michigan Teachers of English to Speakers of Other  
Languages Conferences**

October 9-10, 2009 and October 1-2, 2010

[www.mitesol.org](http://www.mitesol.org)

Editors:

James M. Perren, Kay Losey, Dinah Ouano Perren, Allison  
Piippo

# **Introducing Humane Education to TESOL Curricula**

Andrew Domzalski, *Madonna University* and  
Boguslawa Gatarek, *Madonna University &  
the University of Windsor*

## **Abstract**

This paper calls for incorporating humane education into the professional preparation of ESL teachers. It defines humane education as a form of progressive education connecting the issues of social justice, environmental concerns, and animal protection. It traces the history of humane education in the American educational system and briefly discusses its ancient roots. It explains the benefits of incorporating humane education into ESL instruction and gives an example of a graduate TESOL course, which prepares teachers to use humane themes in language instruction. Specific lesson plans are showcased.

This paper aims at introducing the reader to humane education, its history and its theoretical underpinnings. Humane education is a form of progressive education connecting the issues of social justice, environmental concerns, and animal protection. This paper discusses general benefits that stem from this form of engaged pedagogy and particular benefits that result from applying it to both ESL instruction and ESL teacher preparation. The authors' experience of teaching a TESOL methods course centered on humane education serves as a basis for offering classroom-based ideas.

Some aspects of humane education have long been present in the American educational system. Yet, interweaving its three elements, human rights, environmental ethics, and animal protection traditionally viewed as separate causes, is a novel phenomenon. Equally new is its application to language learning, as no published reports of such efforts undertaken in a systematic way are available.

The graduate TESOL students enrolled in the experimental course centered on applying humane education to ESL instruction, at first cautious and unsure of what to expect, engaged wholeheartedly with the task of incorporating humane education themes and materials

into their lesson plans, as the course progressed, involving deeply all, students and instructors alike, into the realm of this cutting-edge aspect of progressive education.

### **The Ancient Roots of Humane Education**

Humane education, whether in its narrow scope, e.g. teaching kindness to animals, or in its broad-based version encompassing the concern for humans and the environment as well, finds support in human experiences often quite removed both geographically and historically from our reality. While an in-depth exploration of these occurrences would go beyond the purpose of this paper, a mentioning of selected experiences prevents drawing a conclusion that humane education is a uniquely modern idea. While all world religions contain in their scriptures and teachings ideas that support the outlook offered by humane education, these views are seldom preached from the pulpit (Regenstein, 1991). However, history provides us with the examples of religious figures who brought humane concerns to the mainstream. The interested reader is invited to explore the life of Saint Francis, whose concerns for the others, the environment and the animals, whom he called “little brethren”, are well known in the Catholic tradition. Although “some of these stories are doubtlessly exaggerated or apocryphal, but they do demonstrate Francis’ well-known concern for animals” (Regenstein, 1991, p. 66).

Apart from the western tradition, the history of Buddhism offers its own humane tale in the form of a story about King Asoka the Great (c. 274-232 B.C.E.), who established a nearly vegetarian society in the northern India and is credited with opening the first animal hospitals and with laws that required digging wells along all major roads so both humans and animals alike may quench their thirst, not a small feat in a tropical climate (Regenstein, 1991, p. 241).

The world-wide religions by no means hold a monopoly on reverence toward the other humans, animals, and the environment. Aboriginal religions from the Americas to Australia are characterized by the respect for nature and animals are conceptualized as equal, if not superior to humans. The native religions of North America often see animals as divine (Atwood, 1993; Jones 2005).

## **The Brief History of Humane Education in the American Educational System**

At its beginnings, humane education in the United States and Canada was concerned with both animal and child welfare. Its onset was directly linked to the rise of humane societies which took place in the second half of the nineteenth century (Antoncic, 2003; Selby, 2000; Unti & DeRosa, 2003). Connected with character building and teaching morality, within the next few decades it became a compulsory facet of curricula in twenty states (Unit & DeRosa, 2003). The first two decades of the twentieth century could be considered the “golden age” of humane education, but the shift in the political climate toward militaristic as opposed to peaceful solutions caused its decline in the forties and fifties (Oakley, 2007). Humane education at that time was conducted mostly by humane societies. It focused on animal-protection issues and on responsible pet ownership (Humes, 2008).

This seems to remain true of humane education today, which in practice narrows its scope to animal-related issues and makes little effort to meet its conceptual goals of connecting human, animal and environmental issues. Despite the many difficulties, the field of humane education has been steadily growing for the past few decades. The renewed interest is partially due to the broad spectrum of humane theory and practice with its added focus on teachers’ education. It is also attributed to the rise of the animal and social advocacy movements and to the connections made between different kinds of oppression (Humes, 2008).

The development of the current, broad-based humane education encompassing human rights and environmental ethics as well as animal welfare can be most directly traced to the work of Jane Goodall, a world-renown British primatologist, whose research on the chimpanzees in Gombe, Tanzania, not only revolutionized field biology and our understanding of great apes, but also provided a new paradigm for conservation efforts. In short, Goodall understood that in order to save the chimpanzees of Gombe from extinction, their large habitat must be preserved. This, in turn, can be only accomplished in close co-operation with the local people, for whom saving chimpanzees must become more profitable than capturing or poaching them, often the only available source of income ensuring survival. The success of what became the Gombe National Park has been repeated with many other endangered species throughout Africa and its principles have inspired educators around the world, including those in the United States.

The following quote best describes the essence of the efforts that constitute the roots of today's humane education:

“The Jane Goodall Institute works to protect the famous chimpanzees of Gombe National Park in Tanzania, but recognizes this can't be accomplished without a holistic approach that addresses the real needs of local people. Our conservation efforts include sustainable development programs that engage communities as true partners. These programs began around Gombe but now spread across the continent. Likewise the Roots & Shoots youth action program Jane and a group of Tanzanian students started in 1990 now spreads to more than 100 countries.” (Jane Goodall Institute, 2010)

Since its inception, Roots and Shoots, which focuses on activities and service-learning projects benefiting local communities, their environments and animals, has seen a tremendous growth. This success is well exemplified by forty three current youth clubs in Michigan alone at locations varying from kindergartens to colleges to home schools (Roots & Shoots, n.d.).

Another ground-breaking development in the newest history of humane education in the United States came in 1996 with the establishment of the Institute for Humane Education, which features, among other programs, the first master's degree program in the field. As its founder Zoe Weil put it, it aims at “inspiring the 3 Rs of reverence, respect, and responsibility so the students will have both the passion for, and the commitment to, bringing about positive change” (Weil, 2006, p.645).

Both Roots and Shoots and the Institute for Humane Education emphasize bringing about social change. A natural venue for accomplishing this goal is service learning. Engaging English language learners in service learning can be seen as one form of task-based instruction, a well-established approach based on providing language learners with a natural context for language use (Larsen-Freeman, 2003).

Using service learning in language instruction also finds support in another school, the participatory approach, originated in the early sixties by Paulo Freire for the first language literacy education in Brazil, and discussed in second language literature in 1980's (Larsen-Freeman, 2003). The participatory approach is based on the assumption that the meaning of education is based on its power to transform the lives of the learners and their environment. Humane

education certainly fits the bill as a progressive and transformative pedagogy affecting humans, other species, and the environment.

### **The Benefits of Humane Education**

The benefits of humane education in the context of ESL instruction are two-fold: general and language-specific. As the history of humane education suggests, it has been considered an important part of character building. Such early modern philosophers as John Locke and Immanuel Kant claimed that there existed a connection between cruelty to animals and cruelty to humans (Oakley, 2007). This notion has been reinforced by modern psychology (Thompson & Gullone, 2003) and is widely accepted in society. The value of teaching kindness, respect, and empathy toward others can hardly be disputed, as pro-social behaviors support peaceful co-existence. Humane education seems to be an effective way of developing the desired behaviors. To this end, Nicoll, Trifone, and Ellery (2008) report that an in-class humane education program offered to eight classes of first-graders caused the students to change their attitudes toward animals in the positive direction. Some studies suggest that simply exposing students to animals in positive contexts that allow for bonding not only change students' attitudes toward animals in the positive direction, but also increase their interest in the sciences (Sorge, 2009).

Applying humane education to ESL instruction brings about its own language-specific benefits. Humane education issues tend to be involving and emotionally charged. Since most students tend to have strong opinions on such subjects and are experts on their own cultures, they are more likely to engage in classroom discourse. Large volumes of language production facilitate language learning. So does emotional involvement. In addition, humane education strategies include tips regarding cultivating open dialogue during discussing controversial topics. They can be most helpful in multi-ethnic classrooms where no cultural assumptions should be taken for granted.

Both the general and language-specific benefits discussed above constitute jointly a compelling reason to use humane education in ESL instruction. This can be done most effectively by enriching teacher preparation curricula with necessary content knowledge and strategies of the field. One such attempt, albeit limited, is described in the section below.

## **A Humane-Education-Based TESOL Methods Course**

When an opportunity arose to work with graduate TESOL students on an optional one-credit-hour thematic course in TESOL instruction, humane education was selected as its focus. All the enrolled students had previously completed two or more methods courses, so the advanced stance was assumed. The syllabus description of the course called for exploring the ways in which humane education themes (human rights/social justice, animal welfare, and environmental protection) can be incorporated into adult ESL instruction. The emphasis was put on designing lesson plans in five skills (speaking, listening, reading, writing, and grammar) that utilized humane education materials. The course objectives were construed, as follows:

1. Evaluate humane education materials in terms of their usefulness for ESL instruction.
2. Apply humane education materials to teach specific language skills.
3. Design humane education-based ESL lesson plans.

In addition to participating in class discussions, the students were expected to prepare two elaborate adult ESL lesson plans based on humane education themes, each focused on a different skill and self-selected proficiency level. At least one lesson plan had to incorporate all three areas of concern (human rights/social justice, animal welfare, and environmental protection).

Since the students were quite familiar with both the principles of ESL instruction and with the required format for lesson plans, yet quite new to humane education, the instructors' input and class discussions focused on the latter. To this end, the students were introduced to the concept and principles of humane education (see Appendix A), its benefits, brief history, and theoretical underpinnings. Power point presentations, instructional videos, and discussions were used for that purpose. Factory farming was used as a classical example of a modern-day phenomenon which evokes the concerns from all three areas: human rights/social justice (health concerns, labor concerns regarding work conditions and employing undocumented workers), animal welfare (cruelty), and environmental protection (pollution). Having established the rationale and theoretical basis, the instructors modeled the application of teaching strategies developed for a general purpose of humane education (Weil, 2004) to specific contexts of ESL instruction (see Appendices B & C).

The first modeled strategy, *Behind the Scenes* (Weil, 2004), starts with choosing an object, possibly something from the students' immediate environment, such as a watch, T-shirt, hand bag, etc. Then, the students are asked four questions from that object:

1. *How did I come into existence?*
2. *Who has been involved in my production?*
3. *Who or what was harmed for me to get to you right now?*
4. *Who or what was helped for me to get to you right now?*

Next, the students brainstorm as many details as possible regarding all the stages of the production and transportation of the selected object. Then they do research to see how accurate their brainstorming predictions were. Finally, they are asked to suggest the ways in which the production and transportation of the object could be made more environment and worker-friendly. To apply the above strategy to ESL instruction we identified a list of specific language topics that can be suitably taught using *Behind the Scenes* across skills and proficiency levels. At the intermediate level, vocabulary items may relate to the production and transportation of various goods. For grammar, we suggest teaching simple past and passive voice, while the writing instruction may focus on process writing and chronological conjunctions. Finally, regarding pronunciation, we suggest practicing various ways of pronouncing the *-ed* ending, as the past tense and passive voice are taught. At the advanced level, one could teach legal vocabulary as it pertains to worker compensation, banning of products and the like. The strategy provides a great opportunity to teach persuasive writing with the use of past modals and unreal conditionals, as they can be naturally evoked by the fourth listed question.

The second modeled strategy, *Trash Investigators* (Weil, 2004), consists of investigating the contents of a trash can. Each student, using latex gloves, can choose one object from the can and attempt to answer the following questions:

1. *Could this item have been recycled instead of thrown in the trash?*
2. *Could this item have been composted instead of thrown in the trash?*
3. *Could it have been prevented from ever entering the waste stream?*
4. *Is this item a want or a need?*

### *5. Could the item have been reused in some creative way?*

Next, the students report on their items and compare the contents of the trash can before and after recycling. We suggest the use of this strategy with ESL students for the following purposes. At the beginning level, vocabulary items for common products and adjectives can be taught. Present tense questions, negations, and there is/there are structures can be introduced as well. At the intermediate level, present modals and unreal present conditionals can be taught in the context of descriptive writing. At the advanced level, the strategy is most conducive to teaching past modals and past conditionals in the context of descriptive writing.

As the course progressed, our MATESOL students became more cognitively and emotionally involved in its content, as they were researching a wide spectrum of topics for their lesson plans, from recycling to modern-day slavery. More importantly, they were discovering connections between seemingly unrelated humane concerns. Although they were finding the task of incorporating all three areas (human, animal, and environmental) in one lesson plan quite challenging, the fruit of their efforts exceeded the instructors' expectations (see Appendices B & C for selected student work, permission to share on file). The students' lesson plans attest clearly to their high level of ability to incorporate humane education principles into their instruction. While one hopes that the excitement generated among the students in the course and the knowledge and skills they gained will carry over to their own ESL classrooms for the benefit of English language learners, it remains to be seen whether it is actually the case. This question calls for research studies exploring the effectiveness of humane education training, as evidenced by incorporating them in instruction subsequent to exposure. In addition, equally important is investigating the pedagogical benefits of using humane education in language teaching.

As it is true of any emerging field, much remains to be accomplished in terms of conceptual development and research exploration. Yet, since the field of TESOL, from its very inception, has been the forerunner of progressive pedagogical ideas, humane education holds a potential to align well with our goals as we engage in teaching for a change.

## Author(s) Note

Andrew Domzalski, Professor at Madonna University and Boguslaw Gatarek, Professor at Madonna University and the University of Windsor. Correspondence concerning this article should be addressed to Andrew Domzalski (adomzalski@madonna.edu).

## References

- Atwood Lawrence, E. (1993). The symbolic role of animals in the Plains Indian Sun Dance. *Society & Animals Journal*, 1(1).
- Antonicic, L. (2003). A new era in humane education: How troubling youth trends and a call for character education are breathing new life into efforts to educate our youth about the value of all life. *Journal of Animal Law*, 9, 183-213.
- Humes, B. (2008). Moving toward libratory pedagogy for all species: Mapping the need for dialog between humane and anti-oppressive education. *Green Theory & Praxis: The Journal of Ecopedagogy*, 4(1), 65-85.
- Jane Goodall Institute. (2010). Retrieved from <http://www.janegoodall.org/jane-goodall><http://www.janegoodall.org/jane-goodall>
- Jones, R.A. (2005). *The Secret of the Totem: Religion and Society from McLennan to Freud*. New York: Columbia University Press.
- Larsen-Freeman, D. (2003). *Techniques and principles in language teaching*. New York: Oxford University Press.
- Nicoll, K., Trifone, C., & Ellery, S. W. (2008). An in-class, humane education program can improve young students' attitudes toward animals. *Society and Animals*, 16(1), 45-60.
- Oakley, J. (2007). *Humane education: A genealogical consideration and preliminary literature review*. Unpublished PhD Portfolio defended November, 14, at the Lakehead University, Thunder Bay, ON.
- Regenstein, L.G. (1991). *Replenish the Earth*. Crossroad: New York.
- Roots and Shoots. (n.d.). Retrieved from <http://www.rootsandshoots.org/findagroup><http://www.rootsandshoots.org/findagroup>
- Selby, D. (2000). Humane education: Widening the circle of compassion and justice. In T. Goldstein & D. Selby (Eds.),

*Weaving connections: Educating for peace, social and environmental justice* (pp. 268-296). Toronto: Sumach Press.

- Sorge, C. (2008). The relationship between bonding with nonhuman animals: Students' attitudes toward science. *Society and Animals, 16* (2), 171-184.
- Thompson, K. & Gullone, E. (2003). Promotion of empathy and prosocial behavior in children through humane education. *Australian Psychologist, 38*(3), 175-182.
- Unti, B. & DeRosa, B. (2003). Humane education: Past, present and future. In D. J. Salem & A.N. Rowan (Eds.), *The state of the animals II: 2003* (pp. 27-50). Washington, DC: Humane Society Press.
- Weil, Z. (2004). *The power and promise of humane education*. Gabriola Island, BC: New Society Publishers.
- Weil, Z. (2006). Every life of value. In J.A. Marched (Ed.), *Living a life of value* (p.645). San Diego: Values of the Wise Press.

## Appendix A

### *Four Elements of Humane Education (Weil, 2004, 19-20)*

- Providing accurate information
- Fostering the 3 Cs: Curiosity, Creativity, and Critical thinking
- Instilling the 3Rs: Reverence, Respect, Responsibility
- Offering positive choices that benefit oneself, other people, the Earth, and animals.

## Appendix B – Student Example

Jackson's Lesson Plan  
Madonna University

TSL 5400: Humane Education-Based  
ESL Instruction: Spring, 2009

### The Courtroom of the World

#### Objectives:

- Linguistic objective-students will be able to identify and create cause-and-effect relationships using connectors and sentences.
- Nonlinguistic objective-students will be able to process and produce contradictory opinions concerning critical issues on human, animal and environmental rights, and conveyed potential solutions based upon gathered information.

**Target Population:** adult students with high intermediate to low-advanced English language proficiency.

**Michigan Standards:** Writing 6.4.1; Reading 6.3.2; 6.3.6; Speaking 6.2.6 & 6.2.7; Listening 6.1.3

**Materials/Technology:** Law and Order clip, connectors chart, cause-and-effect matching worksheet, Cause-And-Effect Pictures, Humane Education clip, newspaper headline clippings, case study.

**Technology:** Computers/Internet (video viewing website), Overhead Projector/Transparencies, PowerPoint

#### Anticipatory Set: (10 minutes)

- Instructor will begin by posting a *Questions to Think About* on a chalk/white board. Questions included: 1. Who is asking the questions? 2. What is the crime? 3. Why is the man arrested? 4. Do you believe he did it?
- Students will watch *Law and Order Clip* while using these four questions as the focus.
- Instructor will pull the class on their answers to the questions, and introduce the idea of contradictory opinions and cause-and-effect.

## Lesson Preparation

### Input/Modeling: (25 minutes)

- The instructor will discuss the relationship between cause and effect, using relevant examples to model sentences.
- The instructor asks the class if they notice any similarities between the sentences, and displays the *Connectors Chart* to draw attention to the grammatical structure.
- The instructor will display of the *Cause and Effect Pictures* on PowerPoint and model the cause-and-effect relationship using connectors.

### Comprehension Check: (10 minutes)

- Students will complete the cause-and-effect matching worksheet individually, and create an example sentence for each.
- The instructor will circulate the classroom, give examples, answer questions, and review possible solutions as a class.

### Guided Practice: (30 minutes)

- The instructor will display a *Newspaper Headline Clipping* and *Case Study* and read the case study regarding the human, animal, or environmental rights issue. The case study will give information on both sides of the issue.
- The instructor will divide the board into two parts, and pull the class understands on the issue. Students will identify the reasons they believe a particular party is at fault and draw direct cause-and-effect relations. The instructor will help them form sentences to write on the board defending their stance using connectors.
- The instructor will divide the class into small groups and distribute a *Newspaper Headline Clipping* and *Case Study* to each group. There will be two groups for each particular headline, taking opposing sides.
- Each group will read the *Case Study* popcorn style and find support for their stance. Together the group will create 10 cause-and-effect statements defending their opinion and opposing the other group.
- Groups will take turns presenting responses to the class for each clipping. Students not defending a stance for a particular

clipping will pose as the Jury and take a written vote on their position at the conclusion of each case.

### Independent Practice and Assessment (10 minutes)

- The instructor will model different compromises for each human, animal, or environmental problem.
- Individually the students create a potential solution to each of the problems, and generate one cause-and-effect sentence using connectors to display the benefits of the idea.
- Assessment: students will give their statements to the instructor for review and will receive detailed feedback in the next class.

### Closure: (5 minutes)

- Instructor will show a brief video about the impact of being vocal about social and environmental issues.

### *Cause–Effect Connectors Chart*

COORDINATING	CORRELATIVE	SUBORDINATING	TRANSITION
These occur mid-sentence and join two independent clauses. A comma is placed before the conjunction.	These occur paired and are used to join equivalent sentence elements such as one noun or noun phrase with another noun or noun phrase.	These occur at the beginning of sentences (with a comma separating the clause mid-sentence) or they occur mid-sentence with no comma.	These can be used at the beginning of sentences. They transition the reader from the thought of one sentence or paragraph to the thought in the next.
He saw starving children, so he decided to help.	He raised so much money that they were able to create a food bank.	The children grew because they had food.	People helped. As a consequence, the children survived.
He decided to help, for he knew they could be saved.	He raised such a large amount of money that they were able to create a food bank.	Because they had food, the children grew.	People helped; as a consequence, the children survived.
Cause *for (reason or cause)	so that (emphasis on cause) such that (emphasis on cause)	The children grew because of the food.	For this reason, For all these reasons
Effect so (result)		because, since, now that, as, as long as, inasmuch, because of, due to, owing to so that (purpose-result) in order that (purpose-result)	Therefore, Consequently, As a consequence, As a result, Thus, Hence

## Appendix C - Student Example

Christopher Sas' Lesson Plan      TSL 5400: Humane Education-Based  
Madonna University                      ESL Instruction: Spring, 2009

### **“The True Cost”**

#### ***Objectives:***

Linguistic: Students will be able to write a critical thinking essay about becoming more environmentally aware / humane in their daily lives.

Non-Linguistic: Students will become familiar with environmental issues, will learn to make better and more humane choices, and will learn the effects of our choices on animals, humans, and the environment.

#### ***Standards:***

Advanced ESL Learners: Listening [6.1.1, 6.1.2, 6.1.4]; Speaking [6.2.1, 6.2.2, 6.2.4, 6.2.6, 6.2.7]; Reading [6.3.3, 6.3.4, 6.3.5, 6.3.6]; Writing [6.4.1, 6.4.2, 6.4.3, 6.4.5, 6.4.6]

#### ***Materials:***

“15 Tips for Cultivating a More Humane Life” article; Photos of: an egg, a cotton shirt, and a household cleaner; Power Point presentation; and “Inconvenient Truth” movie.

#### ***Technology:***

Computer and Television with DVD player

#### ***Timing:***

Anticipatory Set: 15 min; Teaching: 35 min; Guided Practice: 35 min; Closure: 5 min; TOTAL TIME: 90 min.

#### ***Anticipatory Set:***

Discuss with students where everyday items such as food, clothing, and house-hold cleaning products come from. Then draw the student’s attention to the sordid past of some of these items and the steps that are taken to make them available to the public.

***Teaching:***

Students will be shown the pictures of the egg, cotton shirt, and plastic bottle. They will then be told about factory farming, modern slavery, and landfills. Students will then discuss the impact of these on the environment and will think of ways in which we can change these issues. As a class we will read the article “15 Tips for Cultivating a More Humane Life”. Students will also view excerpts from the film “Inconvenient Truth”.

***Guided Practice:***

Students will begin to brainstorm about their critical thinking essay on how to become more humane. They will be broken up into small groups to discuss the different methods of becoming a more humane society and will discuss some ways of implementing them into their daily lives. Students will also begin an outline for their essay. Essay topic is: How can I become more humane?

***Closure:***

Teacher will review the topics of the class and the necessity to become a more humane society. Teacher will review the steps of a critical thinking essay.

***Independent Practice:***

Students will be asked to investigate the origins of some of the items that they may have in their home, where did they come from? Could they be the products of factory farming, modern slavery, or are any of these items recycled? This activity is designed to help students in their critical thinking essay.

*\*\*\* This is only one segment of a series of segments and discussions about becoming a more humane society. The essay is designed to be discussed over a period of two to three class sessions. \*\*\**



## **Things Your TESOL Prof Never Told You**

Christen M. Pearson

---

**“Transforming Learning: Teaching & Advocacy” and  
“ESL at the Crossroads”**

**Selected Proceedings of both the 2009 and 2010  
Michigan Teachers of English to Speakers of Other  
Languages Conferences**

October 9-10, 2009 and October 1-2, 2010

[www.mitesol.org](http://www.mitesol.org)

Editors:

James M. Perren, Kay Losey, Dinah Ouano Perren, Allison  
Piippo

# Things Your TESOL Prof Never Told You

Christen M. Pearson

*Grand Valley State University*

## Abstract

Graduate TESOL programs seek to prepare students in the areas of core linguistic concepts, second language acquisition theory, sociolinguistics, language assessment, and ESL pedagogy. However, few, if any, programs cover the crucial foundation upon which a second language is built, namely, the first language. This is a critical omission, especially for teachers who are trying to decipher why a student is struggling in order to determine how best to support his/her learning. The purpose of this paper is to address this gap by exploring the range of variables—prenatal, perinatal, and postnatal—that can negatively impact language learning, learning in general, and literacy development.

## Introduction

Most TESOL programs explore many variables, often referred to as *individual differences*, which can have an impact on second language acquisition. These can include language aptitude (Carroll, 1981; Ortega, 2009); personality variables, such as risk-taking, anxiety, perfectionism, extroversion, and introversion (Skehan, 1989); motivation, including both instrumental and integrative (Gardner, 2001; Gardner & Lambert, 1972); intelligence (Pearson, 2000; Skehan, 1980; Wesche, Edwards, & Wells, 1982); and processing constraints, such as reaction to the input, noticing, and intake (Van Patten, 2004, 2007). (For an accessible overview of these areas, see Brown, 2000 and 2001.) The question that then arises, though, is: what affects the above individual differences in L2 acquisition? One possible answer would be first language proficiency. This seems reasonable if the first language (L1) is taken to be the foundation of the second (L2), as Cummins (2000) has discussed in his Common Underlying Proficiency (CUP) and Interdependence of Languages hypotheses. Thus, a serious gap in a student's knowledge base has occurred when few, if any, programs cover the critical foundation of not only normal first language acquisition, but also the causes of language processing problems in

general. This is a critical omission, especially for K-12 teachers, who are trying to decipher why a student is struggling in order to determine how best to support his/her learning. The effect of language processing, whether L1 or L2, on literacy acquisition further compounds the educational issue.

The purpose of this paper, then, is to address this gap in a cursory fashion by exploring a range of variables known to negatively impact first language acquisition, learning in general, and the resulting influence on academic learning. These variables include: 1) prenatal risk factors, including alcohol use/abuse, drug use/abuse, maternal smoking, maternal stress, and prenatal infections; 2) prematurity and low birth weight; and 3) postnatal problems, including malnutrition/micronutrient deficiencies, neglect/abuse, infectious disease (e.g., TB, Hepatitis B), environmental toxins (e.g., lead poisoning), and recurrent otitis media (ear inflammation/infection with or without effusion <sup>1</sup>). The following discussion will first address established and potential risk factors for language problems in general, followed by more detailed coverage of risk factors during each of the above causal time periods.

### **Established and Potential Risk Factors**

Many factors exist which can negatively impact learning in general and language learning in particular. According to Roseberry-McKibbin (2007, pp. 226-227), risk factors for language processing problems fall into two categories: established factors where the risk level ranges from high to certainty of a concurrent speech-language impairment, and potential factors where the risk level ranges from mild to high chances of an accompanying speech-language impairment. Established risk factors include: genetic syndromes (e.g., Down syndrome), congenital malformations (e.g., cleft palate, spina bifida); neurological disorders (e.g., cerebral palsy); atypical developmental disorders (e.g., autism); sensory disorders (e.g., visual impairment, hearing loss); metabolic disorders (e.g., pituitary diseases, Tay-Sachs disease); chronic illnesses (e.g., cystic fibrosis, diabetes); severe infectious diseases (e.g., encephalitis, meningitis, HIV); and severe toxic exposure (e.g., fetal alcohol syndrome, lead poisoning). (For a fuller explanation of the above, see Roseberry-McKibbin & Hegde, 2006; Rosetti, 2001; and Weitzner-Lin, 2004.)

*Potential risk factors*, with a greater range of degree of risk, include: serious prenatal and natal complications, including fetal anoxia

(oxygen deprivation at birth), smallness for gestational age (defined as less than the 10<sup>th</sup> percentile), and low birth weight (defined as less than 1500 grams<sup>2</sup>); signs of early behavior disorders (e.g., frequent tantrums, chronic irritability, and withdrawal); chronic middle ear infections; family history of predisposing medical or genetic conditions (e.g., mother with gestational diabetes); chronic or severe physical or mental illness or mental retardation in caregivers; caregiver or parental substance abuse; chronically dysfunctional interaction between family members (e.g., frequent violent parental arguments, physical abuse between parents); isolation of child or prolonged separation of child from primary caregiver/parent; serious questions raised by a parent, caregiver, or professional as to a child's development; parental education level below the ninth grade and/or parental unemployment or chronic welfare dependency; dangerous or unstable living conditions (e.g., homelessness); and lack of health insurance, inadequate prenatal care, and/or overall poor health (Roseberry-McKibbin, 2007, pp. 226-227). (For further details, see Roseberry-McKibbin & Hegde, 2006; and Rossetti, 2001.)

Two questions might arise at this point: how do these risk factors impact language learning and why is it important for teachers to be aware of these factors? Addressing the relevance for teachers first, it is important to understand that the incidence of communication disorders in the general population is not trivial. According to Owens, Metz, and Haas (2003, p. 49), 17% of the U.S. population is affected by some type of communicative disorder. Approximately 11% are affected by a hearing loss, including 1-2% of the population under age 18 years. Six percent of the population has some type of speech or language impairment. This includes 8-12% of preschool children (decreasing to 5-10% of the elderly for whom stroke or dementia are the most typical causal factors). From these figures, it can be determined that most, if

---

<sup>1</sup> Effusion is defined as “the oozing of fluids from blood or lymph vessels into body cavities or intercellular tissue spaces as a result of inflammation, or the presence of excess blood or tissue fluid” (Encarta World English Dictionary, accessed 11/23/09). In the context of this paper, effusion is simply the residual fluid that often remains in the middle ear after an ear infection and which, over time, either drains via the Eustachian tubes or is reabsorbed by the body.

<sup>2</sup> Equivalent to 3.306 pounds.

not all, teachers will encounter children and youth on a regular basis, throughout their teaching careers, that have some type of speech, language, or hearing impairment. There is no reason to believe that the incidence is any less in the ESL population, as will be seen shortly, as certain ESL groups, such as refugees, fall into multiple risk groups. In fact, in the ESL population, the problem becomes “murkier” as teachers struggle to disentangle whether a child is simply delayed in the acquisition of English in comparison to his/her L1 peers or whether there might be an underlying language processing problem. For this reason, it is imperative that teachers have a working knowledge of common risk factors for language in general so that they can determine if a child exhibits a cluster of factors, making for a high risk profile, thereby indicating the need for a referral for assessment rather than repetitively taking a “wait and see” attitude.

In returning to the first question posed above, regarding the specifics of these risk factors and the consequences for language development, it will be helpful to categorize them according to period of etiology: prenatal, perinatal, and postnatal. Note, however, that it is possible for some risk factors to have multiple causes and therefore fall into more than one time period.

### **Risk Factors Occurring During the Prenatal Period**

There are many risk factors that occur during the time period between conception and birth. During this period the embryo, and then fetus, is developing so rapidly that even small negative effects can have significant consequences; further, not until six months of age is the blood brain barrier fully developed (Antoniadis, Gilbert, & Wagner, 2006). Therefore, any toxic exposure during the prenatal period can have especially deleterious effects. According to the American Academy of Pediatrics (2001), prenatal exposure to drugs and/or alcohol affects approximately 11% of newborns. Miller (2005), though, states that this figure reflects inaccuracies in reporting, does not correspond to what the physical evidence shows, and does not consider the impact of multiple substances used simultaneously. For example, she states that “[t]obacco smoke and cocaine combine synergistically to increase the risks of prematurity and intrauterine growth retardation. Cocaine and alcohol together form cocaethylene, which is more neurotoxic than cocaine alone” (p. 111). Therefore, Miller concludes that incidence figures are deflated, further stating that “[l]anguage, behavior, attention, and emotional regulation are particularly vulnerable to prenatal drug exposure” (p. 113). Antoniadis, Gilbert, and Wagner

(2006) also note an interaction, though with genetics and neurotoxicants in the environment, stating that there are “windows of vulnerability” (p. 6). They further state that the damage of neurotoxins is rarely fully valued, lending credence to Miller’s contention of under-reporting.

### ***Neurotoxin Exposure (Non-Prescription Drug Use)***

An example of a problem caused by a specific toxin is *fetal alcohol syndrome* (FAS). FAS is defined by Miller (2005) as “a constellation of physical and neurobehavioral abnormalities resulting from maternal ingestion of alcohol during pregnancy...[of] as little as 2 or more ounces per day” (p. 90). A less severe form is termed alcohol related birth defects (ARBD). Both FAS and ARBD cause impaired cognitive and psychosocial functioning, taken to be the most disabling features of these syndromes. Even when matched for IQ, children with FAS and ARBD exhibit poor interpersonal skills when compared with controls with no exposure to alcohol (Miller). In addition to depressed cognitive and psychosocial functioning, children with FAS/ARBD commonly have auditory problems. These can include sensorineural hearing loss, developmental delays in maturation of the auditory system, and conductive hearing loss due to recurrent otitis media (ear infections) caused by craniofacial abnormalities. Children with FAS also often present with sensory integration disorder, hyperactivity, and poor attention spans. Fahey and Reid (2000) note that many of the above dilemmas are further compounded by the additional problems of prematurity and low birth weight.

Developmental delays specific to speech and language can also occur with FAS. Counterintuitively, receptive language is often more adversely affected than expressive language (Miller, 2005). In addition to general delays in receptive and expressive domains, children with FAS show limited early vocabularies, shallow word meanings, and reduced sentence length (Fahey & Reid, 2000). Additionally, Ratner and Harris (1994) state that problems with social development are often caused by inappropriate use of language and avoidance of conversation in social settings. The above difficulties in language can then negatively impact the children’s academic performance, with difficulties in comprehension, abstract thinking, visual/spatial memory, problem solving, and conceptualization being common (Fahey & Reid, 2000; Ratner & Harris, 1994).

Another toxin ingested by the expectant mother that can have deleterious effects is *crack/cocaine*. A study by Lester, Lagasse, and Seifer (1998) in which they conducted a meta-analysis of 101 existing studies investigating the use of cocaine during pregnancy found significantly lowered scores in the areas of receptive and expressive language along with a slight reduction in intelligence levels. Additionally, according to Fahey and Reid (2000), the following negative effects are associated with crack/cocaine use during pregnancy: prematurity and low birth weight; sensory problems involving the auditory pathways; language difficulties across both receptive and expressive realms; pragmatic challenges that include inappropriate gaze and turn-taking; learning disabilities; and academic performance that declines over time.

Though considered relatively benign in the past, more recent research over the past twenty years has shown a significant negative impact of *tobacco* use on the developing fetus, infant, and young child, including that of *secondhand smoke*. These include: prematurity and low birth weight; long-term effects on cognition and learning (Miller, 2005), including impaired executive and memory functions (Fried, Watkinson, & Gray, 1992, 1998); and problems with sensory systems such as auditory processing deficits (Fried & Watkinson, 1988; Kristjansson, Fried, & Watkins, 1989), visuoperceptual function (Fried, & Watkinson, 2000), and difficulty orienting to voice (Fahey & Reid (2000). More specific to language and schooling, exposure to tobacco in utero and/or as secondhand smoke as an infant and child can cause poor language performance (Fahey & Reid, 2000; Miller, 2005) and language learning disabilities (Fried, O'Connell, & Watkinson, 1992; Fried & Watkinson, 1990; Fried, Watkinson, & Siegel, 1997; Tomblin, Smith, & Zhang, 1997). Exposure during infancy and childhood can also contribute to middle ear infections (Fahey & Reid, 2000) and, during sensitive prenatal periods, to later problems with academic performance, including less advanced verbal skills (Fahey & Reid, 2000), reading disabilities (Fried, Watkinson, & Siegel (1997), and depressed math scores (Fahey & Reid, 2000).

*Marijuana* use during pregnancy can result in reduced performance on verbal tasks during the childhood period (Fahey & Reid, 2000). It is interesting to note that marijuana use exerts significantly less of an impact compared to tobacco use during pregnancy, though this may be due to fewer available studies on this particular environmental toxin.

## ***Environmental Toxins***

According to Schettler, Stein, Reich, Valenti, and Wallinga (2000), exposure to developmental neurotoxicants (e.g., pesticides, lead, mercury) increases the risk of attention deficit disorder (conservatively 3-6% of the U.S. population) and learning disabilities (estimated at 5-10% of the population). Children become even more vulnerable to neurotoxicants when they suffer from concurrent nutrient deficiencies (Miller, 2005). *Lead* is one of the more common neurodevelopmental toxicants of which the public is aware, though most think of this toxin as only being in older chipping paint which young children may eat. In reality, lead exposure can occur in many other ways (Antoniadis, Gilbert, & Wagner, 2006), for example, due to leaching into drinking water from older plumbing systems, both residential and schools; from lead dust in older homes and schools which can be inhaled leading to an on-going process of slow toxic exposure; and even in children's jewelry, lunch boxes, and candy. The impact of high levels of lead include decreased language processing performance, impaired language function, lower vocabulary and grammatical reasoning scores, impaired auditory and language processing, and hearing impairment (Miller, 2005). *Mercury* is another well-known neurotoxicant that can cause brain damage in the fetus, along with later language impairments. Perhaps the most well-known risk of mercury poisoning concerns maternal consumption of contaminated fish (Miller, 2005). For further information on the negative effects of neurotoxicants on children see Gilbert (2005) and Landrigan, Schechter, Lipton, Fahs, and Schwartz (2002).

## ***Prenatal Infections***

Several infections contracted by the mother during pregnancy can have severe negative consequences for a developing fetus. *Cytomegalovirus* (CMV) is virus that usually only causes mild infections in children and adults; however, for a fetus, the negative impact can be significant. Approximately fifty percent of North American women do not have immunity (Miller, 2005), and according to the Centers for Disease Control (2009), approximately one in 750 children are born each year in the United States with CMV or develop disabilities later on due to exposure as a fetus. Of these, 80-90% are symptomatic at birth and have significant problems during infancy and early childhood due to bleeding and liver problems, mental disability, and most important in relation to language – hearing and vision loss. Infants who are asymptomatic at birth have a 5-10% chance of later

developing hearing and/or mental problems. Infection through the mother can occur before birth, during delivery, and through breastfeeding. The mother is infected through either sexual contact or non-sexual, close relations with others infected with the virus. Infection can also occur via blood transfusions.

Another virus that is mild in children and adults, yet causes significant damage to a developing fetus, is *toxoplasmosis*. Pregnant women can contract this organism through undercooked meat (lamb, pork, beef) or exposure to infectious animals, especially cats which are host organisms (Kravetz & Federman, 2005). The younger the fetus is when exposed, the more severe the impact, which can include eye damage, hearing loss, low birth weight, prematurity, seizures, and mental retardation, among other problems.

A more common disease to many is that of *rubella*, which is also called German measles or three-day measles. Though rubella is a virus that is not as severe in children and adults as the “regular” measles, the consequences for a fetus, as with the previously discussed diseases, is significant. Children exposed in utero to rubella often have heart defects, mental retardation, blindness, and hearing impairment (March of Dimes, 2009a). Even genital *herpes* is now known to put unborn children at risk with a small percentage of children developing hearing loss during the early childhood period (March of Dimes, 2009b). Finally, one out of every one thousand children are born with *HIV* each year (Boswell, 1999; Hall, Oyer, & Haas, 2001; Rabins, 1996). Miller (2005) states that of the many complications of this disease in children, chronic otitis media and recurrent respiratory infections are especially common. Of additional concern is that some of the drugs used to treat HIV and AIDS are ototoxic, i.e., the drugs, themselves, cause hearing loss (Hall, Oyer, & Haas, 2001).

Finally, a factor during the prenatal period that is often overlooked is that of maternal *stress*. Increased stress can cause excessive production of cortisol and other hormones. According to Miller (2005), this excess then “alters the regulation of glucocorticoid receptors in the brain resulting in excessive binding of cortisol. Prolonged elevation of glucocorticoid levels adversely affects the brain” (p. 124). An area of the brain that is especially vulnerable to damage is that of the hippocampus, which is involved in learning and memory (Gunner, 1998). Additional maternal stressors during the prenatal period include: malnutrition, recurrent/chronic illness, depression, and physical and/or sexual abuse (Miller).

## **Risk Factors Occurring During the Perinatal Period**

Two main risk factors that occur during the perinatal period are *prematurity* and *low birth weight* (LBW). Both of these have long-term consequences which can continue into adult life, almost like a domino effect. Prematurity and LBW have been found to be highly correlated with respiratory distress syndrome; this, in turn, is associated with later speech and language disorders, as well as reading and learning disabilities (Paul, 1995). For example, children who were premature at birth often score lower on measures of vocabulary, expressive language, and phonological short-term memory (Briscoe, Gathercole, & Marlow, 1998). Children who were LBW can be even more negatively impacted than those who were mildly to moderately premature, as some element was less than optimum throughout the pregnancy (in comparison to normal development with a precipitous birth), e.g., maternal smoking, poor maternal nutrition, and/or placental insufficiency).

The domino effect alluded to above is due to the confound of *poverty* which is correlated with both LBW and prematurity. Not only does poverty exert a direct effect on maternal nutrition and access to quality prenatal care—both of which put the fetus at higher risk of LBW or a premature delivery—but children raised in poverty have depressed language skills during the preschool years. For example, semantic skills, narrative abilities, and metalinguistic awareness skills average two standard deviations below the mean in such children (Whitehurst, 1997). Other contributing factors, according to Whitehurst, include less language input (e.g., being read to), poor nutrition during infancy and childhood, and lower educational levels of caregivers.

In addition to the long-term effects of poverty, premature infants are more likely to elicit abuse. This, in turn, increases the risk for central nervous system damage, which then further increases the risk of language and learning disabilities (Paul, 1995). Related to abuse is the quality of the mother-child attachment, which has been found to be more significant in relation to language development than maltreatment (Carlson, Cicchetti, Barnett, & Braunwald, 1989). In other words, neglect could have a more deleterious effect than abuse (Pearson, 2009). Both, however, cause significant negative effects on pragmatic skills (Owens, Metz, & Haas, 2003), with affected children being less talkative, having fewer conversational skills, and being less likely to volunteer information and more reticent to discuss feelings and emotions. These effects then result in reduced utterance length,

shorter conversations for age, and depressed academic oral and written skills.

### **Risk Factors Occurring During the Postnatal Period**

Risk factors during the postnatal period include a continuation of those factors that affected the developing fetus via the mother and are now affecting the infant and child more directly, as well as some additional factors. Inadequate maternal nutrition now continues as *malnutrition* in the infant, and, according to Miller (2005), “often occurs in conjunction with neglect” (p. 155) with “broad effects on growth, development, cognition, behavior, and immune function” (p. 156). Additionally, ability to maintain attention and effects on memory function can be especially vulnerable. Miller further notes that malnutrition rarely occurs by itself; rather, an interactive mix of contributing factors influence intellectual development, including inadequate housing, poor health, disruptions within the family structure, and both social and economic disadvantages. The impact of nutrition is so great that even in children with what is typically thought of as adequate nutrition, certain dietary deficiencies of protein and fatty acids can exert a negative effect on speech and language, as well as perception, vision, gross motor function, and immune function (Miller, 2005). Note that many of the above factors then potentially lead to increased risk of respiratory and ear infections, which, if chronic, can lead to hearing loss and resulting language problems. Even *micronutrient deficiencies*, including deficits in protein consumption, can cause developmental delays along with long-term negative effects on cognition. Lozoff, Brittenham, Viteri, Wolf, and Urrutia (1982), in a study of 19-24 month olds with iron deficiency, found delays in language, vocalizations, social interaction, and productive vocabulary. In another study of iron deficiency, Roncagliolo, Garrido, Walter, Peirano, and Lozoff (1998) found prolonged auditory brain stem conduction time in anemic six month olds.

While a variety of maternal infections can harm the developing fetus, others can exert a negative effect on the infant and child. Miller (2005) notes that *tuberculosis* (TB) is “one of the deadliest diseases in the world...[and is] associated with crowding, malnutrition, and poverty” (p. 215). Pearson (2009) found degree of TB to be correlated with functional production of ESL in her study of internationally adopted (IA) children. In fact, using multiple regressions, it was found that the degree of TB, along with the personality characteristic of motivation and L1 proficiency at arrival to the adoptive home, were all

that were needed to predict ease/difficulty in the production of BICS one year post-arrival. Even *intestinal parasites*, which are common throughout the world especially under conditions of crowding and poor hygiene, can cause impaired cognitive function, delays in physical development, and poor intellectual growth (Guerrant, Moore, Lima, Patrick, Schorling, & Guerrant, 1999). These and other chronic infections (such as Hepatitis B and C) decrease the energy available for growth across all areas of development.

Finally, *hearing loss* exerts a significant impact on language and cognitive development during the early childhood years and beyond. Tye-Murray (1998) estimates that there are over one million children in the U.S. with hearing impairment. Of these, the majority are prelingually deaf (Schirmer, 2001), meaning that they were born deaf or became deaf prior to learning to talk. This lack of ability to hear during the formative period—both cognitive and language-wise—of birth through three years causes not only delays in productive language, but more crucially in comprehension (Lui, 2001). Causes of hearing loss range from the uncommon to the ubiquitous: congenital abnormalities, maternal viral infections, anoxia at birth, prematurity, Rh incompatibility, childhood diseases, blows to the head, certain antibiotics and drugs, excessive noise (e.g., loud music, explosives), even the common cold.

Hall, Oyer, and Haas (2001) note that even mild chronic hearing loss, such as what might occur with asymptomatic ear infections with effusion (termed “functional auditory isolation” by Miller, 2005, p. 202), can have a significant negative impact on language development. This can include difficulty in recognizing voices, discriminating between sounds, and understanding speech (Owens, Metz, & Haas, 2003). Fahey (2000) notes that even occasional otitis media with effusion can adversely affect language. Further, academic development can be jeopardized in addition to speech and language development (or perhaps as a direct result of the compromised language development). Finally, as has been noted by Fahey (2000) and Feldman et al. (2003), hearing loss and depressed language development can be complicated by other risk factors, such as socio-economic status, maternal educational level, the home environment, and the quality of the verbal environment and input.

## **Are There Differences for Second Language Learners?**

There are few differences between first and second language learners regarding risk factors for language. However, certain second language populations do fall into multiple high-risk groups. For example, children of *refugee families* can be at higher risk. Because of the difficult conditions in refugee camps, prenatal risk factors are increased: exposure to infection is high; access to quality prenatal care may be nonexistent to minimal at best; lack of quality nourishment is, unfortunately, a way of life; and maternal stress is compounded for all these reasons and more. These prenatal risks often contribute to the perinatal risks of prematurity and LBW. Postnatal risks include increased risk of malnutrition and micronutrient deficiency; increased exposure to infectious disease because of crowded living conditions; recurrent otitis media caused by poor nutrition and rampant disease; lack of access to medical care; and exposure to environmental toxins. Even if the family is now settled into a higher quality of life here in the U.S., if the mother was pregnant with the child while in a refugee camp or the child spent his/her early life in such an environment, the early risk factors will continue to exert an effect.

*Children of migrant workers* also are at increased risk for factors that contribute to language and learning problems. Because of conditions at many migrant camps compounded by the need to frequently move, migrant mothers experience increased exposure to infection and also stress during the prenatal period. Lack of quality nutrition can also occur. When these risk factors exist along with limited access to prenatal care, prematurity and LBW are more likely to occur. Limited finances constrain families from being able to afford the quality of care needed to optimally care for their premature and LBW children, further compounding the situation. Even if the infant is born healthy and of good birth weight, malnutrition and/or micronutrient deficiency can occur if formula is diluted or a nursing mother is not receiving a high quality diet. Infants and young children are also at higher risk for infectious diseases due to challenging living conditions, which then can lead to chronic ear infections because of the lack of access to medical care—either lack of physical access or financial access. It does not take much thought to quickly realize that, for these populations, the risks accumulate quite rapidly for hearing, language, and learning problems.

## Conclusion and Implications

Many different risk factors for first language development have been explored in a cursory manner in this paper: drug use, environmental toxins, diseases, malnutrition, and so on across the prenatal, perinatal, and postnatal time periods. The question, though, is: why should ESL/second language teachers be concerned with these risks? After all, ESL teachers are teaching a second or third language, not a first, and graduate TESOL programs do not include them in their curricula, so perhaps this information is not important.

The argument that has been presented here, though, is that it is not enough to simply say that first language acquisition impacts second language acquisition which, in turn, impacts literacy development. The factors which impact first language acquisition must also be considered for two main reasons: 1) the first language is considered to be the foundation upon which the second (and subsequent) is built, and 2) the factors reviewed in this paper have such a significant impact that they will affect all language learning throughout life, as well as some areas of learning in general. All K-12 teachers need to be aware of the negative effects on language learning of: the use/abuse of common drugs, including alcohol and tobacco, during the prenatal period; exposure to environmental toxicants; maternal and child infections; the “trickle-down” effects of poverty which include inadequate nutrition, limited access to medical care, and increased stress – during all stages of a child’s development, especially in utero and during the first three years of life, along with the life-long impact on learning in general that can result. If a teacher is aware of these factors, he/she will be able to recognize a cluster of risk factors or characteristics that indicate a child fits a high-risk profile for language development and learning. ESL teachers in the K-12 academic setting, especially need to be aware of these factors when working with refugee populations and migrant families, many of whom experience poverty with its resulting limited access to high quality nutrition and appropriate medical care. Without such knowledge, children who are struggling with language and learning are at risk of automatically being put in the “it’s just an ESL issue which will resolve over time” category, rather than receiving the assessments they need to determine *why* they are struggling. And without such assessments, children with underlying language and learning processing problems will not receive the scaffolding services they need. It is hoped that this brief overview of “things your TESOL prof never told you”, along with the checklist found in Appendix A, will help teachers become the advocates their ESL students need.

## Author Note

Christen M. Pearson, Associate Professor, English Linguistics and TESOL, Grand Valley State University. Correspondence concerning this article should be addressed to Christen M. Pearson (pearsonc@gvsu.edu).

## References

- American Academy of Pediatrics, Committee on Substance Abuse (2001). Tobacco's toll: Implications for the pediatrician. *Pediatrics*, *107*, 794-798.
- Antoniadis, A, Gilbert, S. G., & Wagner, M. G. (2006, September 26). Neurotoxicants: Environmental contributors to disability in children. *The ASHA Leader*, *6-7*, 38-39.
- Boswell, S. (1999). Probing HIV/AIDS link to communication disorders. *ASHA Leader*, *4*(1), 1, 6.
- Briscoe, J., Gathercole, S. E., & Marlow, N. (1998). Short-term memory and language outcomes after extreme prematurity at birth. *Journal of Speech, Language, and Hearing Research*, *41*(3), 654-666.
- Brown, H. D. (2000). Principles of language learning and teaching, 4<sup>th</sup> ed. White Plains, NY: Longman.
- Brown, H. D. (2001). Teaching by principles: An interactive approach to language pedagogy, 2<sup>nd</sup> ed. White Plains, NY: Longman.
- Carroll, J. (1981). Twenty-five years of research on foreign language aptitude. In K. Diller (Ed.), *Individual differences and universals in language learning aptitude* (pp. 83-118). Rowley, MA: Newbury House.
- Carlson, V., Ciechetti, D., Barnett, D., & Braunwald, K. B. (1989). The development of disorganized/disoriented attachment in maltreated infants. *Developmental Psychology*, *25*, 525-531.
- Centers for Disease Control and Prevention, Department of Health and Human Services (n.d.). *Cytomegalovirus*. Retrieved December 4, 2009, from <http://www.cdc.gov/cmvp/pregnancy.htm>
- Cummins, J. (2000). *Language, power, and pedagogy: Bilingual children in the cross-fire*. Clevedon, England: Multilingual Matters.

- Fahey, K. R. (2000). Speech problems in classrooms. In K. R. Fahey & D. K. Reid (Eds.), *Language development, differences, and disorders: A perspective for general and special education teachers and classroom-based speech-language pathologists* (pp. 297-325). Austin, TX: Pro-Ed.
- Fahey, K. R. & Reid, D. K. (2000). *Language development, differences, and disorders: A perspective for general and special education teachers and classroom-based speech-language pathologists*. Austin, TX: Pro-Ed.
- Feldman, H. M., Dolloghan, C. A., Campbell, T. F., Colborn, D. K., Janosky, J., Kurs-Lasky, M., Rokette, H. E., Dale, P. S., & Paradise, J. L. (2003). Parent-reported language skills in relation to otitis media during the first 3 years of life. *Journal of Speech, Language, and Hearing Research, 46*(2), 273-287.
- Fried, P. A., O'Connell, C. M., & Watkinson, B. (1992). 60- and 72-month follow-up of children prenatally exposed to marijuana, cigarettes, and alcohol: Cognitive and language assessment. *Journal of Developmental & Behavioral Pediatrics, 13*, 383-391.
- Fried, P. A., & Watkinson, B. (1988). 12- and 24-month neurobehavioural follow-up of children prenatally exposed to marihuana, cigarettes and alcohol. *Neurotoxicology and Teratology, 10*, 305-313.
- Fried, P. A., & Watkinson, B. (1990). 36- and 48-month neurobehavioral follow-up of children prenatally exposed to marijuana, cigarettes, and alcohol. *Journal of Developmental & Behavioral Pediatrics, 11*, 49-58.
- Fried, P. A., & Watkinson, B. (2000). Visuo perceptual functioning differs in 9- to 12-year olds prenatally exposed to cigarettes and marihuana. *Neurotoxicology and Teratology, 22*, 11-20.
- Fried, P. A., Watkinson, B., & Gray, R. (1992). A follow-up study of attentional behavior in 6-year-old children exposed prenatally to marihuana, cigarettes, and alcohol. *Neurotoxicology and Teratology, 14*, 299-311.
- Fried, P. A., Watkinson, B., & Gray, R. (1998). Differential effects on cognitive functioning in 9- to 12-year olds prenatally exposed to cigarettes and marihuana. *Neurotoxicology and Teratology, 20*, 293-306.

- Fried, P. A., Watkinson, B., & Siegel, L.S. (1997). Reading and language in 9- to 12-year olds prenatally exposed to cigarettes and marijuana. *Neurotoxicology and Teratology*, *19*, 171-183.
- Gardner, R. C. (2001). Integrative motivation and second language acquisition. In Z. Dornyei & R. Schmidt (Eds.), *Motivation and second language acquisition* (pp. 1-19). Honolulu, HI: National Foreign Language Resource Center.
- Gardner, R. C., & Lambert, W. C. (1972). *Attitudes and motivation in second language learning*. Rowley, MA: Newbury House.
- Gilbert, S. G. (2005). Ethical, legal, and social issues: Our children's future. *NeuroToxicology*, *26*, 521-530.
- Guerrant, D. I., Moore, S. R., Lima, A. A., Patrick, P. D., Schorling, J. B., & Guerrant, R. L. (1999). Association of early childhood diarrhea and cryptosporidiosis with impaired physical fitness and cognitive function four-seven years later in a poor urban community in northeast Brazil. *American Journal of Tropical Medical Hygiene*, *61*, 707-713.
- Gunnar, M. R. (1998). Quality of early care and buffering of neuroendocrine stress reactions: Potential effects on the developing human brain. *Preventive Medicine*, *27*, 208-211.
- Hall, B. J., Oyer, H. J., & Haas, W. H. (2001). *Speech, language, and hearing disorders: A guide for the teacher* (3rd ed.), Boston: Allyn & Bacon.
- Kravetz, J. D., & Federman, D. G. (2005). Toxoplasmosis in pregnancy. *American Journal of Medicine*, *118*(3), 212-216.
- Kristjansson, E. A., Fried, P. A., & Watkinson, B. (1989). Maternal smoking during pregnancy affects children's vigilance performance. *Drug and Alcohol Dependence*, *24*, 11-19.
- Landrigan, P. J., Schechter, C. B., Lipton, J. M., Fahs, M. C., & Schwartz, J. (2002). Environmental pollutants and disease in American children: Estimates of morbidity, mortality, and costs for lead poisoning, asthma, cancer, and developmental disabilities. *Environmental Health Perspectives*, *110*, 721-728.
- Lester, B. M., Lagasse, L. L., & Seifer, R. (1998). Cocaine exposure and children: The meaning of subtle effects. *Science*, *282*, 633-634.
- Lozoff, B., Brittenham, G. M., Viteri, F. E., Wolf, A. W., & Urrutia, J. J. (1982). Developmental deficits in iron-deficient infants:

- Effects of age and severity of iron lack. *Journal of Pediatrics*, 101, 948-952.
- Lui, M. S. (2001). *A survey of communication disorders for the classroom teacher*. Boston: Allyn & Bacon.
- March of Dimes (n.d.). *Professionals and researchers: Genital herpes and pregnancy*. Retrieved December 4, 2009, from [http://www.marchofdimes.com/professionals/14332\\_1201.asp#head7](http://www.marchofdimes.com/professionals/14332_1201.asp#head7)
- March of Dimes (n.d.). *Professionals and researchers: Rubella (German measles)*. Retrieved December 4, 2009, from [http://www.marchofdimes.com/professionals/14332\\_1225.asp](http://www.marchofdimes.com/professionals/14332_1225.asp)
- Miller, L. C. (2005). *The handbook of international adoption medicine: A guide for physicians, parents, and providers*. New York: Oxford University Press.
- Ortega, L. (2009). *Understanding second language acquisition*. London: Hodder Education.
- Owens, R. E., Metz, D. E., & Haas, A. (2003). *Introduction to communication disorders: A life span perspective* (2nd ed.). Boston: Allyn & Bacon.
- Paul, R. (1995). *Language disorders from infancy through adolescence: Assessment & intervention*. St. Louis: Mosby.
- Pearson, C. (2000). *Vocabulary learning in ESL preschool children: Accounting for individual differences*. Unpublished doctoral dissertation. Indiana University, Bloomington.
- Pearson, C. (2009). *SLA in internationally adopted children: The impact of medical, social, psychological, and linguistic factors*. Paper presented at the annual meeting of the Second Language Research Forum (SLRF). East Lansing, MI: Michigan State University.
- Rabins, A. (1996). Convention '95. *ASHA Leader*, 1(1), 1, 3.
- Ratner, V. L., & Harris, L. R. (1994). *Understanding language disorders: The impact on learning*. Eau Claire, WI: Thinking Publications.
- Roncagliolo, M., Garrido, M., Walter, T., Peirano, P., & Lozoff, B. (1998). Evidence of altered central nervous system development in infants with iron deficiency anemia at 6 mo:

- Delayed maturation of auditory brainstem responses. *American Journal of Clinical Nutrition*, 68, 683-690.
- Roseberry-McKibbin, C. (2007). *Language disorders in children: A multicultural and case perspective*. Boston: Pearson/Allyn & Bacon.
- Roseberry-McKibbin, C., & Hegde, M. N. (2006). *Advanced review of speech-language pathology: Preparation for PRAXIS and comprehensive examination* (2<sup>nd</sup> ed.). Austin, TX: Pro-Ed.
- Rossetti, L. M. (2001). *Communication and intervention birth to three* (2<sup>nd</sup> ed.). Albany, NY: Singular/Delmar.
- Schettler, T., Stein, J., Reich, F., Valenti, M., & Wallinga, D. (2000). *In harm's way: Toxic threats to child development*. Cambridge, MA: Greater Boston Physicians for Social Responsibility.
- Schirmer, B. (2001). *Psychological, social and educational dimensions of deafness*. Boston: Allyn and Bacon.
- Skehan, S. (1980). Memory, language aptitude, and second language performance. *Polyglot*, 2, Fiche 3.
- Skehan, S. (1989). *Individual differences in second-language learning*. New York: Edward Arnold.
- Tomblin, J. B., Smith, E., & Zhang, X. (1997). Epidemiology of specific language impairment: Prenatal and perinatal risk factors. *Journal of Communication Disorders*, 30, 325-344.
- Tye-Murray, N. (1998). *Foundations of aural rehabilitation*. San Diego: Singular.
- VanPatten, B. (2004). Input processing second language acquisition. In B. VanPatten (Ed.), *Processing instruction: Theory, research, and commentary* (pp. 5-31). Mahwah, NJ: Lawrence Erlbaum Associates.
- VanPatten, B. (2007). Input processing in adult second language acquisition. In B. VanPatten & J. Williams (Eds.), *Theories in second language acquisition: An introduction*. New York: Routledge.
- Weitzner-Lin, B. (2004). *Communication assessment and intervention with infants and toddlers*. St. Louis, MO: Butterworth-Heinemann.

- Wesche, M. B., Edwards, H., & Wells, W. (1982). Foreign language aptitude and intelligence. *Applied Psycholinguistics*, 3, 127-140.
- Whitehurst, G. J. (1997). Language processes in context: Language learning in children reared in poverty. In L. B. Adamson & M. A. Ronski (Eds.), *Communication and language acquisition: Discoveries from atypical development* (pp. 233-265). Baltimore: Paul H. Brookes Publishing Co.

## Appendix A

### Checklist: Exposure to Selected Known Risk Factors for Language and Learning Problems

	Prenatal Exposure	Perinatal History	Postnatal Exposure
<b>Substance Use/Abuse</b>			
Fetal Alcohol Syndrome (FAS)	✓		
Alcohol Related Birth Defects (ARBD)	✓		
Crack/Cocaine	✓		
Tobacco	✓		
Marijuana	✓		
<b>Environmental Toxins</b>			
Second-hand Smoke			✓
Lead			✓
Mercury	✓		✓
<b>Infections/Infectious Diseases</b>			
Cytomegalovirus	✓		
Toxoplasmosis	✓		
Rubella	✓		
Herpes (genital)	✓		
HIV/AIDS	✓		✓
Tuberculosis (TB)			✓
Chronic Upper Respiratory Infections			✓
<b>Parasites</b>			
Intestinal			✓
<b>Hearing</b>			
Otitis Media (ear infections), esp. w/effusion			✓
Functional Auditory Isolation			✓
Central Auditory Processing			✓

Disorder (CAPD)			
Prematurity		✓	
Low Birth Weight (LBW)		✓	
Fetal Anoxia		✓	
Nutrition			
Malnutrition	✓		✓
Micronutrient Deficiencies	✓		✓
- Protein			
- Iron	✓		✓
- Other	✓		✓
Psycho-Social Factors			
Maternal Stress	✓		✓
Poverty	✓		✓
Abuse			✓
Neglect			✓
Lack/Limited Access to Medical Care	✓		✓



## **Critical Thinking and Global Issues in the ESL Writing Classroom**

Marian Gonsior

---

**“Transforming Learning: Teaching & Advocacy” and  
“ESL at the Crossroads”**

**Selected Proceedings of both the 2009 and 2010  
Michigan Teachers of English to Speakers of Other  
Languages Conferences**

October 9-10, 2009 and October 1-2, 2010

[www.mitesol.org](http://www.mitesol.org)

Editors:

James M. Perren, Kay Losey, Dinah Ouano Perren, Allison  
Piippo

# **Critical Thinking and Global Issues in the ESL Writing Classroom**

Marian Gonsior

*Madonna University*

## **Abstract**

This paper follows the author's quest to develop the "perfect" English for Academic Purposes (EAP) writing class and her eventual decision to eliminate the textbook in favor of focusing on global issues in the classroom and using authentic materials gathered from Internet and print sources instead. The author first describes some available literature pertaining to second-language writing instruction and her survey of writing assignments in content-area courses at her university which went into a 2004 MITESOL presentation "Putting the 'A' in EAP Writing Courses." The author also outlines a series of events which led to her advanced ESL writing course designed around the United Nations' Millennium Development Goals. This paper discusses the efficacy of teaching critical thinking skills by using global issues in the ESL writing classroom. The author describes the important debates concerning critical thinking and highlights the main contributors to scholarship in the field. Major objections to the method are also discussed, along with the author's own experiences with teaching critical thinking skills using global issues to a group of advanced ESL writers. An appendix includes an extensive global education resource list.

## **Introduction**

The most important issue that English as a Second Language (ESL) composition teachers confront is what to present in their lessons and how to present the material they have chosen. Thanks to (or despite) a plethora of second-language scholarship in recent years, and the field's early reliance on first language (L1) composition theories, a multitude of approaches have been suggested to answer these questions of "what" and "how". In an early summary of this dilemma, Silva (1990) refers to the veritable firestorm of approaches as a "merry-go-round" that "generates more heat than light" (p. 18), posing more problems than solutions for ESL composition teachers (not to mention

their students). Since the publication of Silva's article, a myriad of second-language writing handbooks have appeared (some already in second editions), with recommendations for yet additional approaches or the fine-tuning of old ones (Ferris & Hedgecock, 2005; Hinkel, 2004; Hyland, 2003; and others).

However, the existence of so many available teaching methodologies should not be frowned upon for the confusion it may cause, for an eclectic approach might be useful. As Ferris (2002) states, "rigidity in embracing a particular paradigm and rejecting out of hand all elements of others may cause us to ignore who our students are and what they will do after we are done teaching them" (p. 7). Nevertheless, it is for that reason—"what they will do *after* [emphasis added] we are done teaching them"—that many second-language writing instructors are adamant that their ESL courses involve students in a discussion of global issues, with the end result of increasing critical thinking skills in the students and producing concerned global citizens for the future, "after we are done teaching them" (Benesch, 1993, 2001; Davidson, 1998; Pennycook, 1994; Stapleton, 2002).

In the last decade, because our world has become increasing inter-connected due to a myriad of factors, including globalization, lowering of intercultural barriers, and the explosion in Internet usage, the duty of L2 writing instructors to equip their students to respond critically to global issues (Benesch, 2001, after Freire, 1970) might be considered equal to, if not greater than, their mandate "to prepare students to become better academic writers" (Spack, 1988, p. 29).

## Discussion

The value of developing critical thinking skills through presentation of important global issues or other topics in language classes, especially the L2 writing classroom, became especially apparent during the 1990s. In her overview of scholarship on this critical pedagogy, Santos (2001) describes this "approach [as one] that ties course content and materials to sociopolitical issues in the service of social change" (p. 178) and mentions such writers as Canagarajah (1993), Benesch (1993, 1995), and Vandrick (1995), as among those who wrote favorably about the concept. Similarly, Pennycook (1994) comments about the need to "turn classrooms into places where the accepted canons of knowledge can be challenged and questioned" (p. 298).

Benesch (1993) was particularly influenced by the writings of Brazilian educator Paulo Freire (1970/2006) and his ideas about the rejection of the then-accepted “banking” system of education, in which all-knowing instructors poured their wisdom into the heads of their students, and its replacement with what he called a “problem-posing education” (p. 83). For Freire, and his followers, the purpose of education is transformation, in students’ lives, but even more so in their world beyond the classroom (Brown, 2004; Jacobs & Cates, 1999; Small, 2003). In this conceptualization of education,

men and women develop their power to perceive critically *the way they exist* in the world *with which* and *in which* they find themselves; they come to see the world not as a static reality, but as a reality in process, in transformation.

(Freire, 1970/2006)

Those who take a critical stance towards L2 writing use classroom discussions to talk about the students’ world as it is and what it could become. This stance is not without controversy, and it continues to this day to be one of the hot-button topics in ESL pedagogy (Casanave, 2004).

## **Opposition**

Undoubtedly, one of the most significant arguments against critical ESL pedagogy is found in an article by Ramanathan and Kaplan (1996), where the authors suggest that it might be better for L2 writing instructors not to try to encourage critical thinking in their classes because ESL students may not be equipped by their cultural backgrounds to be able to think critically. Ramanathan and Kaplan (1996) held that critical thinking was a Western construct and, therefore, attempting to teach it to ESL students would be yet another instance of the cultural imperialism imposed by English language instructors. The words that caused the most controversy are when Ramanathan and Kaplan (1996) state:

L2 student-writers, given their respective sociocultural and linguistic socialization practices, are more likely than native English speaking (NES) students to encounter difficulty when being inducted into CT [critical thinking] courses in freshman composition classes. They are not “ready” for CT courses in either L1 or L2 writing classrooms. (p. 232)

This assertion and similar ones in an article by Atkinson (1997), in which he maintains that critical thinking skills should not be taught in general ESL classes but only when attached to work in specific disciplines, brought the debate on critical thinking skills in ESL to a fever pitch. In general, rebuttals seemed to state that if U.S. students could be expected to learn how to think critically, then ESL students should (and could) be as well. Davidson (1998), in responding to Atkinson (1997), made the point that one of the purposes of an ESL program is to prepare L2 students to perform on par, or nearly so, with their NES counterparts; therefore, instruction in critical thinking is necessary, considering that NES students are coached in critical thinking throughout their school years. In other words, critical thinking skills should be included along with any other skill, such as paragraph formation or sentence structure, as necessary content in the classroom.

Yet another opposing viewpoint on the issue of critical thinking came from Santos (2001), who disagrees especially with those, including Pennycook (1989) and Benesch (1993, 1995), who take the idea of critical language to the “extreme” (p. 180). Explaining this further, Santos (2001) remarks, “A prime example of what I consider extreme in critical theory and pedagogy is the premise that everything is political and ideological” (p. 180). Instead of providing ESL students what they need to know to be successful in their academic writing, she feels that this focus on deconstructing every minute detail brought up in the class—even to the point of challenging the academic discourses students were struggling to learn—would surely interfere with their academic success.

Some also express concern that a teacher who chooses a global issues focus in the language classroom will indoctrinate students in “approved” Western values when discussing such topics as gender equality and societal stratification. Instructors are cautioned, as when any controversial topic is discussed among reasonable adults, to present issues in a responsible and balanced manner. As Peaty (2004) suggests, it should be made clear to students that their opinions on any of the topics discussed in class will not influence their grades, one way or another. In addition, Peaty (2004) advises instructors to keep their material on the issues up-to-date to avoid presenting something as true when new information or research has changed current viewpoints on the subject.

While these objections may be valid, teachers interested in inculcating their students with critical thinking skills would do well to consider the words of H. D. Brown, well-known developer of teacher-

training materials for ESL instructors, when he observes, “We must subvert the assumptions that teaching languages is sterile or neutral, that it contains no political content, [and] that we should steer clear of touchy global issues” (as cited in Anderson, 1996, n. p.). In fact, Brown (2004) traces what he calls “critical language pedagogy” back to a best-selling book from the 1960s called, *Teaching as a Subversive Activity* (Postman & Weingartner, 1969) and suggests that language teachers may be just the ones to subvert the status quo when it comes to choosing content and deciding how to present that content in the language classroom.

### **EAP Writing Instructor as Global Educator**

Wondering if including critical thinking skills in my own advanced EAP writing course would produce any noticeable change, I chose a Czech-produced English-language teachers’ manual, *Global Issues in the ELT Classroom* (Thomas, 2008), to augment material that I had gathered from various Internet and print sources and previously constructed handouts. The book includes lesson plans based on the United Nations’ Millennium Development Goals (MDGs). These eight goals represent eight world issues that attendees to the 2000 Millennium Summit agreed were the world’s most pressing problems and those on which effort should be made to eliminate by 2015. The Millennium Development Goals include bringing an end to poverty and hunger, gender equality, and environmental sustainability. In the text, instead of attaching English-language learning to one culture, language learning takes place in discussion of topics related to the MDGs, including slums, child soldiers, and early marriage. In the book’s preface, Thomas explains some of the features of the lessons, writing, “In preparing the students to deal with the issues, relevant knowledge of the world is imparted via maps, info boxes, websites, and problem solving activities such as true/false prediction statements. The students are challenged to reflect on their own attitudes, feelings and sensibilities” (p. 5). In this reflection, students were able to bring their own experiences, or lack of experiences, on these issues to the classroom to discuss and/or learn about in an academic atmosphere. These topics were far from “household chores” (seen in an EAP textbook) or even “the importance of American football” (a topic used in a U.S. culture-based EAP course) and represented possible issues of relevance to students who would be responsible global citizens in the future.

My students (a group of seven students, from Korean, India, and Romania) benefited greatly from the inclusion of these global issues in the classroom. I noticed three distinct differences between the class that semester and the times I had previously taught the same course. First, I noticed an increase in the length of student discussions of the topics presented. Unlike before when some topics (“my first pet”) would elicit minimal responses from my students, these global issues seemed to open up stores of knowledge that they had never had the opportunity to express before. Students wanted to tell me and the rest of the class how the issue under discussion impacted people in their own country, and they wanted to ask each other questions to find out what was going on in other countries. I had students remark that they had never had the opportunity to talk about such issues before. Second, unlike before, when students seemed a bit blasé about the topics suggested by the textbooks, the students in this class seemed somewhat shocked about the information I shared. For example, after a class in which I presented a lesson about the socially-accepted marriages of young girls in some countries, I had one young man from Korean approach me to tell me he was going to look for more information on the subject because he could not believe it could be actually happening. He had never heard of such a thing before. Finally, I discovered that covering global issues in the classroom with ESL students encouraged them to tell parts of their personal stories that had remained hidden up to that point. A woman from India told the class during one session about her own attempts to get out of an arranged child marriage. She also wrote a four-page narrative on the subject in which she was able to express her fears and outrage. She told me how thankful she was for having had the opportunity to talk about that episode in her life.

These are merely my observations, while others will be able to give facts and figures about what they have observed. What I observed in the classroom seemed to echo the thoughts of Mansilla and Gardner (2007) who note that using global issues with youth who have been personally affected by the issues, either because of background or previous study, brings them to “exhibit greater global sensitivity, more informed understanding, and a more nuanced sense of a global self” (p. 63). Using global concerns as a focus for a NES writing course may not be as successful because of the isolation of many, but not all, U.S. college-students. In fact, an attempt on my part to conduct such a course led to much frustration over students’ lack of global awareness and their inability to get beyond a “we should go help those people” mentality.

## Conclusion

Teaching critical thinking skills by using global issues in the classroom is not a new idea (the Japan Association for Language Teaching-JALT, for example, has had a Global Issues in Language Education Special Interest Group since 1990) (“Global Issues,” 2007), but it is one that represents a perfect fit with those students who have grown up in an ever-shrinking world, so different from that in which so many pedagogical principles were developed. In today’s world, in which English-language teachers no longer “ha[ve] to be the ambassadors of the ‘English culture’ in the classroom” (Llurda, 2004, p. 319), those same instructors can instead offer students authentic discussion points on matters that students may have seen splashed across the screens of their computers on a 24/7 cycle. Focusing on critical issues in the classroom offers felicitous “alternatives to the views that the purpose of learning English is success in the business world..., being a tourist, and having fun” (Small, 2003, n.p.). The topics are of high interest to students, and in order to talk and write about them, the students must learn academic vocabulary that will serve them well, either in future academic courses or informed discussions back home with international speakers for whom English is a *lingua franca*. Interest is high because, as Dupuy (2000) points out, students feel that, maybe for the first time, they are “learning something valuable and challenging that justifies the effort” (p. 207).

The myriad of approaches to answer the questions “what” and “how” as instructors prepare their ESL courses are still there. ESL instructors have to consider the debate about critical thinking skills in the ESL classroom and decide for themselves if these skills are important enough to teach to their students. Critical ESL classes, in which students are taught to question the world around them, while learning to manipulate the English language, provide educational opportunities “that are neither anachronistic nor irrelevant [and] will ... teach today’s youth to thrive in the complexity and diversity that defines the global era” (Suarez-Orozco & Sattin, 2007). Focusing on critical thinking skills while using global issues in the ESL classroom can spark debate, offer an endless supply of topics and material, and maybe be that first step that concerned ESL instructors can make towards teaching for a better world.

## Author Note

Marian Gonsior teaches at Madonna University. All correspondence concerning this article should be addressed to Marian Gonsior (mgonsior@madonna.edu).

## References

- Anderson, G. G. (1996). Global issues in the university ESL classroom. *The Language Teacher*, 20(11), 20-25. Retrieved from <http://www.gilesig.org/jalt-publications.org/tlt>
- Atkinson, D. A critical approach to critical thinking in TESOL. *TESOL Quarterly*, 31, 71-94.
- Benesch, S. (1993). ESL, ideology, and the politics of pragmatism. *TESOL Quarterly*, 27, 705-717.
- Benesch, S. (1995). Genres and processes in sociocultural context. *Journal of Second Language Writing*, 4, 191-195.
- Benesch, S. (2001). *Critical English for academic purposes: Theory, politics, and practice*. Mahwah, NJ: Erlbaum.
- Brown, H. D. (2004). Some practical thoughts about student-sensitive critical pedagogy. *The Language Teacher*, 28(7), 23-27.
- Blanton, L. L. (1994). Discourse, artifacts, and the Ozarks: Understanding academic literacy. *Journal of Second Language Writing*, 3(1), 1-16.
- Brutt-Griffler, J. (2002). *World English: A study of its development*. Tonawanda, NY: Multilingual Matters.
- Casanave, C. P. (2004). *Controversies in second language writing: Dilemmas and decisions in research and instruction*. Ann Arbor, MI: University of Michigan Press.
- Crystal, D. (2003). *English as a global language* (2<sup>nd</sup> ed.). New York, NY: Cambridge University Press.
- Dupuy, B.C. (2000). Content-based instruction: Can it help ease the transition from beginning to advanced foreign language classes? *Foreign Language Annals*, 33(2), 205-222.
- “Global Issues in Language Education.” (2007). Retrieved from <http://www.gilesig.org>.

- Canagarajah, A. J. (1993). Comments on Ann Raimes' 'Out of the woods: Emerging traditions in the teaching of writing.' *TESOL Quarterly*, 30, 723-738.
- Davidson, B. W. (1998). Comments on Dwight Atkinson's "A critical approach to critical thinking in TESOL": A case for critical thinking in the English language classroom. *TESOL Quarterly*, 32, 119-123.
- Ferris, D. (2002). Introduction. In L. L. Blanton & B. Kroll (Eds.), *ESL composition tales: Reflections on teaching* (pp. 1-15). Ann Arbor, MI: University of Michigan Press.
- Ferris, D., & Hedgecock, J. (2005). *Teaching ESL composition: Purpose, process, and practice* (2<sup>nd</sup> ed.). Mahwah, NJ: Erlbaum.
- Freire, P. (1970/2006). *Pedagogy of the oppressed*. New York, NY: Continuum.
- Hinkel, E. (2004). *Teaching academic ESL writing*. Mahwah, NJ: Erlbaum.
- Hyland, K. (2003). *Second language writing*. New York, NY: Cambridge University Press.
- Jacobs, G. M., & Cates, K. (1999). Global education in second language teaching. *KATA*, 1(1), 44-56.
- Gonsior, M. (2003). EAP writing courses: What should we be teaching? Unpublished manuscript.
- Katz, A. (1996). Teaching style: A way to understand instruction in language classrooms. In K. M. Bailey & D. Nunan (Eds.), *Voices from the language classroom* (pp. 57-87). New York, NY: Cambridge University Press.
- Kimball, M. M., & Gonsior, M. W. (2004). Putting the "A" in EAP writing courses. Paper presented at the Michigan Teachers of English to Speakers of Other Languages (MITESOL) Conference, November 13, 2004, Grand Valley State University, Grand Rapids, MI.
- Kirkpatrick, A. (2007). *World Englishes: Implications for international communication and English language teaching*. New York, NY: Cambridge University Press.
- Leki, I. (1992). *Understanding ESL writers: A guide for teachers*. Portsmouth, NH: Boynton/Cook.

- Leki, I., & Carson, J. G. (1994). Students' perceptions of EAP writing instruction and writing needs across the disciplines. *TESOL Quarterly*, 28(1), 81-101.
- Leki, I., & Carson, J. G. (1997). "Completely different worlds": EAP and the writing experiences of ESL students in university courses. *TESOL Quarterly*, 31(1), 39-69.
- Llurda, E. Non-native-speaker teachers and English as an international language. *International Journal of Applied Linguistics*, 14(3), 314-323.
- Mansilla, V. B., & Gardner, H. (2007). From teaching globalization to nurturing global consciousness. In M. M. Suarez-Orozco (Ed.), *Learning in the global era: International perspectives on globalization and education* (pp. 47 – 66). Berkeley, CA: University of California Press.
- McKay, S. L. (2002). *Teaching English as an international language: Rethinking goals and perspectives*. New York, NY: Oxford University Press.
- Peaty, D. (2004). Global issues in EFL: Education or indoctrination? *The Language Teacher*, 28(8), 15-18. Retrieved from <http://jalt-publication.org/tlt>
- Pennycook, A. (1994). *The cultural politics of English as an international language*. Harlow, England: Longman.
- Postman, N., & Weingartner, C. (1969). *Teaching as a subversive activity*. New York, NY: Delta.
- Ramanathan, V., & Kaplan, R. (1996). Some problematic "channels" in the teaching of critical thinking in current L1 composition textbooks: Implications for L2 student-writers. *Issues in Applied Linguistics*, 7, 225-249.
- Santos, T. (2001). The place of politics in second language writing. In T. Silva & P. K. Matsuda (Eds.), *On second language writing* (pp. 173 – 190). Mahwah, NJ: Erlbaum.
- Silva, T. (1990). Second language composition instruction: Developments, issues, and directions in ESL. In B. Kroll (Ed.), *Second language writing: Research insights for the classroom* (pp. 11-23). Cambridge: Cambridge University Press. [www.gilesig.org](http://www.gilesig.org)

- Small, J. (2003). The potential of language education: A global issues perspective. *The Language Teacher*, 27(3). Retrieved from <http://www.gilesig.org>
- Spack, R. (1988). Initiating ESL students into the academic discourse community: How far should we go? *TESOL Quarterly*, 22(1), 29-51.
- Stapleton, P. (2002). Critical thinking in Japanese L2 writing: Rethinking tired constructs. *ELT Journal*, 56(3), 250-257.
- Suarez, M. M. & Sattin, C. (2007). Introduction: Learning in the global era. In M. M. Suarez-Orozco (Eds.), *Learning in the global era: International perspectives on globalization and education* (pp. 1 – 43). Berkeley, CA: University of California Press.
- Thomas, J. (2008). (Ed.) *Global issues in the ELT classroom*. Brno, Czech Republic: Society for Free Trade (*Spolecnost pro Fair Trade*).

## Appendix A

1. Global Education Resources on the Internet Educators for Social Responsibility: <http://esrnational.org>
2. ESL etc. – Global Issues and Activism in English Language Teaching: <http://www.esletc.com>
3. Gapminder: Unveiling the Beauty of Statistics for a Fact-based Worldview: <http://www.gapminder.org>
4. GILE [Global Issues in Language Education]: The JALT [Japan Association for Language Teaching] Global Issues SIG: <http://www.gilesig.org>
5. Global Issues in Language Education. (Facebook Group Page): [www.facebook.com/pages/Global-Issues-in-Language-Education/116270381757654?ref=ts](http://www.facebook.com/pages/Global-Issues-in-Language-Education/116270381757654?ref=ts)
6. Global Issues in the ELT Classroom: <http://www.globalissues.eu>
7. Global Issues Special Interest Group of the IATEFL (International Association of Teachers of English as a Foreign Language): <http://gisig.iatefl.org>
8. OneWorld.net (U.S.)-Beyond Your Own Borders: <http://us.oneworld.net>
9. Peace Corps – Coverdell World Wise Schools- Global Issues Investigations: <http://www.peacecorps.gov/wws/educators/investigations>
10. Taking IT Global website: Educator's section: <http://www.tigweb.org/tiged>

11. TeachGlobalEd.net: <http://teachglobaled.net>

12. The American Forum for Global Education:  
<http://www.globaled.org>

13. United Nations Millennium Development Goals website:  
<http://www.un.org/millenniumgoals>

14. Worldmapper: The World as You've Never Seen It:  
<http://www.worldmapper.org>



**Where Did It Go? The Hide and  
Seek of Language Attrition and  
the Freeze Tag of Language  
Stagnation**

Christen M. Pearson

---

**“Transforming Learning: Teaching & Advocacy” and  
“ESL at the Crossroads”**

**Selected Proceedings of both the 2009 and 2010  
Michigan Teachers of English to Speakers of Other  
Languages Conferences**

October 9-10, 2009 and October 1-2, 2010

[www.mitesol.org](http://www.mitesol.org)

Editors:

James M. Perren, Kay Losey, Dinah Ouano Perren, Allison  
Piippo

# **Where Did It Go? The Hide and Seek of Language Attrition and the Freeze Tag of Language Stagnation**

Christen M. Pearson

*Grand Valley State University*

## **Abstract**

Since the first language (L1) is often considered the foundation of the second language (L2), a concern for teachers is what happens when L1 stagnation occurs—or even more seriously, L1 loss—two fairly common situations in Michigan schools. In order to address this issue, three main areas are explored in this article. First, an overview of current theoretical explanations from both linguistic and psychological perspectives is presented. This background is then followed by a description of the typical processes of language loss, including patterns of structural disintegration across domains of language, along with strategies learners use to manage communication during this time. Finally, the emotional toll on learners—and impact on their schooling—is discussed, including issues of language as a cultural commodity and identity issues in preschoolers, high school students, and adults reflecting back to school experiences.

## **Introduction**

It is not uncommon for many children, exposed to a second language (L2) during the preschool and elementary years, to experience stagnation of their first language (L1), often followed by an actual loss of the L1 as the L2 continues to be emphasized (Yukawa, 1997). Stagnation of the L1 can be thought of as the childhood game of “freeze tag.” In this situation, the L1 stops developing due to the introduction of another language, and, in essence, “freezes” in form, even though the child continues to develop in the L2 and other areas. Over time, with continued and expanding use of the L2, the L1 can actually be lost. There is some debate, though, on whether the L1 actually ceases to exist or whether it simply cannot be accessed, therefore, being “hidden”. If the latter view is true, then the analogy of the childhood game of “hide and seek” would apply, as the student sifts

through language knowledge seeking lexical items and morpho-syntactic structures that appear to be hidden.

This “freeze tag” or “hide and seek” situation is likely to occur more frequently in situations where the first language has little support, such as in transitional bilingual programs where instruction in the L1 is gradually phased out; classrooms where instruction is in the L2 with pull-out services only in the L2; and in the special situation of internationally adopted children who, in a period of 24-48 hours, typically lose all contact with their L1, both language and culture (Gindis, 2008; Montrul, 2008; Pearson, 1997). Since the L1 is considered to be foundational to other language learning, L1 stagnation (“freeze tag”) and, even more so, L1 attrition (whether true loss or “hide and seek”) are important processes for teachers to understand.

### **Theories of Language Attrition: An Overview**

The subfield of language attrition, situated within second language acquisition (SLA) research, is relatively new, having officially begun in 1980 (Hansen, 2001). The central question of current debate revolves around whether there is actual loss of language *knowledge* (representation in the mind), or whether there is simply loss of *access* to that knowledge (de Bot, 2004; Ecke, 2004), or, more recently, whether the language was ever there to begin with, a concept termed *incomplete development* (Montrul, 2008). Bardovi-Harlig and Stringer (2010) discuss six prominent linguistic hypotheses of L1 attrition, and it is to these that this paper now turns<sup>1</sup>.

First, the *regression hypothesis* holds that the language that is learned first will be the last language lost (Jakobson, 1941; Keijzer, 2004). Though a long-standing perspective, there is little direct evidence for this view. Further, there is no accounting for differences in acquisition or context, such as the situation where the L1 remains dominant or where few situations exist for use of the L2. Better addressing these contexts is the *threshold hypothesis*. Under this view, the language that is learned best is most resistant to loss, that is, least vulnerable to loss (see Berko-Gleason, 1982; Paradis, 2007). Conversely, the language that is not dominant is more likely to be lost. Several problems also arise with this view, the first being that it may not hold equally for all language domains. Additionally, there is the issue of schooling, i.e., literacy acquisition, which has been shown to strengthen the language used for learning, as well as the issue of frequency of reinforcement, also known to strengthen structural

knowledge. Both of these confounds will need to be addressed in a theory with explanatory adequacy.

Another hypothesis is that of *interference*. Under this view, increased negative interference (transfer) increases language loss (Sharwood Smith, 1989). Though likely to play a role in language attrition, interference cannot explain all that transpires. The *simplification hypothesis* has also been proposed, where limited contexts of use increase the potential for loss of the language (Anderson, 1982, 1983). Though not actually a theory, it does have relevance in many educational settings in Michigan and is likely to play a role in a future, more integrated theory of language loss. The *markedness hypothesis* is also being explored, not only regarding language acquisition, but also in language loss (Sharwood Smith & Van Buren, 1991). Originally under Chomsky's Universal Grammar as part of parameter setting, those that hold to this view hypothesize that marked values will revert to unmarked settings (the default setting). However, others that also hold to this view hypothesize the reverse, that marked values will be stronger and, therefore, less likely to undergo attrition.

Finally, the *dormant language hypothesis* raises the question of whether there is complete loss of representations in the mind or whether the loss is constrained to that of access to those representations. As noted above, this view is the focus of much debate, and one that brings psycholinguistics closer to neurolinguistics with the advent of functional MRI (fMRI) studies which track activation patterns in the brain (Kopke, 2004). Studies with adult adoptees are also shedding light in ways not previously explored (for an overview, see Hyltenstam, Bylund, Abrahamsson, & Park, 2009). For example, in adults adopted as young children who have no conscious recollection of their L1, age regression hypnosis has shown that the ability to communicate in the L1 is possible. However, no analyses of individual language domains have been conducted and problems with methodology also need to be addressed before it can be determined just what "communication" means. Other studies have looked at the ability to re-learn the first language, again in adult adoptees and controls. If the L1 were completely lost, the prediction would be that both groups would function in a similar manner; however, if there were only loss of access, it would be predicted that the adult adoptees would re-learn their L1 more quickly and easily than the controls. Results, to date, have been variable with problems, once again, in methodology. Recently, Montrul (2008) has added another question to this debate: is

there actually loss of knowledge or loss of access, *or was there incomplete acquisition to begin with?* That is, if one finds indications of possible loss, how does one know anything was truly lost if the state of knowledge of the L1 at the time of introduction to the L2 is unknown? Questions such of these are ripe for future research and answers will need to be determined before a stronger theory can be proposed.

Turning now to psychological hypotheses of language attrition, the “Freudian notion of intentional forgetting” is at issue (de Bot, 2004; Ecke, 2004). It is interesting to note here that linguists and psychologists are actually exploring the same questions from different fronts, as evidenced by this quote by Ecke (2004) and use of terms such as *acquisition*, *representation*, and *access*:

Forgetting may result from failure in one of three basic components of remembering: *encoding* (the capture and acquisition of novel information), *storage* (the integration and permanent representation of information) and *retrieval* (the access to information when it is needed by the speaker).

(p. 323)

According to Ecke (2004), causes of forgetting can include repression and suppression, interference, and decay. *Repression and suppression* involve the avoidance of past traumatic experiences or past identities. This can be seen in refugees who have fled war-torn countries and experienced persecution. It is also a situation encountered by internationally adopted children who seek to put the past behind them and assume a new identity with a new family. This assumption of a new identity, with suppression of the old one, can be experienced by all immigrants due to the push for assimilation, the educational setting focused on the L2, and the covert messages sent in many forms by the macro-culture.

*Interference* is another cause of forgetting, due in this sense to competing information (Paradis, 1997). That is, the L2, which is more highly activated in the current input, inhibits retrieval of the L1. This would correspond to negative transfer and interference under the linguistic hypotheses, though in a very general sense. *Decay* is also a hypothesis of forgetting. Under this perspective, what is not used would gradually fade from memory, being, in essence, the “use it or lose it” view.

Most recently, psychologists are looking at *interaction and dynamic systems* (Ecke, 2004). This line of inquiry hypothesizes that a multitude of variables interact with each other and are therefore continually changing. This view, like that of the dormant language hypothesis, may hold the greatest promise in the years to come as integrated theories are built to encompass all that continues to be learned about how language is both learned and lost under a wide range of different conditions.

## Typical Patterns of Language Loss

### *Structural Disintegration*

Those who work with learners whose L1 appears to be at risk often want to know what happens to learners' language when it stagnates or undergoes loss. Overall, there is a simplification and reduction across language domain systems (Seliger, 1989, 1991; Vago, 1991)<sup>2</sup> as the structure of the language slowly disintegrates. With the lexicon, there is a more or less gradual reduction to a core vocabulary (Viberg, 1993). First, multiple lexical items collapse into a single item. For example, a learner who is fascinated by dogs and can name each breed—*Lab, poodle, beagle*—starts calling all breeds by the generic term *dog*. The system then collapses further; for example, the learner now calls all four-legged creatures—dogs, cats, cows, and pigs—by the word *dog*. Following this, even larger categories of words are lost, resulting in many concrete nouns now being referred to as *thing*. For example, the learner might say *I want that thing* or *That thing hit me*.

In the case of a language's morphology, there is a collapse of both the case and inflectional systems as well as loss of function words (Kaufman & Aronoff, 1991). In highly inflected languages with a rich case system, only the subject and object case will be retained. In less inflected languages, for example English which only has remnants of case marking as evidenced in its pronoun system, only object case will remain. Regarding verbal morphology, here also the inflectional system collapses with inflectional endings that mark only grammatical function eroding first (e.g., third person subject verb agreement) followed by endings that encode meaning (e.g., progressive tense and past tense). Eventually, only the base form (stem) of the verb is retained. Function words also drop out of use due to their decreased semantic weight. For example, modal auxiliaries such as *can, could, and should* are no longer used; articles (*a/an*) and determiners (*the*) will be absent; and prepositions such as *in, on, and of* will no longer be in evidence. Recently, Guiberson et al. (2006) found that the collapse of the

morphological system was the key feature of loss in preschool-aged children of Mexican immigrants. In learners aged three to twelve years, this type of loss is especially important to note as it mimics features of specific language impairment, a language learning disorder that affects approximately seven percent of the population (Leonard, 1998). This, then, results in a situation that confounds the difference vs. disorder distinction that is of concern in the fields of second language acquisition and TESOL. (See Pearson (2004, 2008a, 2008b, 2009) for further information on this issue, as well as the classic by Schiff-Myers (1992) on assessment issues.)

Lastly, the syntactic system also undergoes reduction, with a more variable word order reducing to a more basic structure (Tsimplici, Sorace, Heycock, & Filiaci, 2004). Historically, this is what has occurred in English. One thousand years ago, English had a rich case and inflectional system and a more variable word order than it does currently. Over time, though, there was a loss of the case marking system. Without case markers encoding who was doing what to whom, the need for a more rigid word order was needed. Currently, the basic underlying word order in English is subject-verb-object (SVO) which provides the listener with the cues needed to determine who is the agent and who is the recipient of the action. Language attrition in an individual follows a similar path. As the morphological system collapses, the need for a basic, invariant word order results. Additionally, complex sentences reduce to compound sentences. For example, a sentence with a subordinate clause such as *The big Lab who is yellow barked at the little girl* would reduce in complexity to two independent sentences joined by a conjunction, such as *The big Lab is yellow and he barked at the little girl*. Taking all of the above changes together, with enough time, the final result might be: *Dog yellow. Bark girl*. At this point, only basic lexical items remain in use, inflections are absent, and the syntax has been reduced to the telegraphic stage.

### ***Communication Strategies***

The next question to address is how learners compensate in communication when experiencing a language system that is collapsing. Turian and Altenberg (1991), in a classic case study of a Russian-English bilingual child, discuss three types of strategies used when coping with language loss. These are interlingual, intralingual, and discourse strategies. Interlingual coping mechanisms involve strategies between the L1 and L2, including code-switching, lexical borrowing, and transfer of word order. In this instance, contrary to

current thought, code-switching would be a sign of lack of proficiency in a language.

While interlingual strategies involve the manipulation of both languages, intralingual strategies involve only the language being lost. Three such strategies include analogical leveling, lexical innovation, and approximation. Analogical leveling occurs when a regular form is used for an irregular form, e.g., *goed* instead of *went*. Here, the regular past tense marker *-ed* is used with the irregular verb *go*. Lexical innovation involves the invention of a new word for a known concept. Though a creative use of language, with the other indications discussed above, it is a sign of a language in flux. Approximation involves using a similar lexical item that shares several features for a word that cannot be recalled, e.g., *look* instead of *see*. Both involve the visual sense, yet semantically there is a difference, namely, intentionality.

Finally, discourse strategies involve interaction with interlocutors. These can include overt comments, such as *I forgot*; appeals for assistance, e.g., *How do you say... ?*; and even deliberate wrong answers in order to elicit the correct word or form from the listener. There is also the strategy of avoidance where the speaker simply does not respond to the interlocutor or changes the topic to one in which there is more control of the vocabulary. Any or all of these strategies may be occurring at any one time.

### **The Emotional and Educational Cost of L1 Loss**

Moving to the emotional and educational cost of L1 stagnation and attrition, what do teachers need to be thinking about regarding these “recess games” of “freeze tag” and “hide-and-seek” that play out—often with negative consequences—*inside* the classroom? The first area to explore is that of identity issues. Falstich Orellana (1994) has reported on the “superhuman forces” (p. 9) that can exert an effect on identity in children as young as preschoolers. In her study, three young children were evaluated on language use and dominance in both home and school environments across two time periods: age 2;10- 3;6 years and three years later at age 5;10-6;6. During the first phase, all the children were Spanish dominant in both home and school environments. Three years later, the children no longer used Spanish spontaneously, were reluctant to use it even when encouraged, and were limited in their expression across all contexts and interlocutors. According to Faulstich Orellana, the superheroes had won, as evidenced by a statement from Carlos, one of the children in the study

who said “he would not speak Spanish when he grew up because Superman did not speak Spanish, nor did Peter Pan” (p. 5). When such young children make such statements, one has to question the degree of covert pressure from the macro-culture on young children. Though this study was reported over fifteen years ago, teachers today must ask themselves whether significant progress has been made in societal attitudes towards Spanish in the U.S. or whether the situation has remained essentially unchanged<sup>3</sup>. If major superheroes and other characters with which young children identify remain monolingual English-speaking, there is little support for the L1. It is only when Peter Pan, Superman, and other superheroes become fluent Spanish-English bilinguals that the macro-culture will begin to send the message to young impressionable minds that bilingualism is valued.

Teenagers are also in the throes of identity formation, and it is this group that Hakuta and D’Andrea (1992) have reported on in their classic large scale study of the maintenance and loss of Spanish in teens of Mexican descent. There were three goals to this study: 1) to determine proficiency levels of both Spanish and English (by both testing and self-report); 2) to ascertain, across settings, the choice of which language to use (self-report); and 3) to explore attitudes towards both languages. Hakuta and D’Andrea found that maintenance of Spanish skills was dependent upon the extent to which adults in the home used the language. Outside of the home, however, students quickly assimilated to English in the schools. This was due, in part, to the view that the L1 should be lost so that the L2 had an opportunity to become stronger. In reality, though, those that held this view were actually *less* proficient in the L2. It was also found that as ties to the Mexican homeland become more distant in families who had been in the U.S. for a longer period of time, and as stronger ties to the U.S. developed especially in the children and teens, identity issues took precedence with the result that the L1 began to undergo attrition. This loss of the L1, though, was thought to be more of retrieval (the loss of access issue discussed at the beginning of this article) rather than in loss of mental representation. Since it has been established that the L1 is the foundation for the L2 and that strong bilingual skills are associated with a cognitive advantage (Genesee, Paradis, & Crago, 2004), one must ask why stronger measures are not in place in the schools to encourage bilingual development. Further, one must ask why the macro-culture does not support bilingual identity formation.

These identity issues that are in evidence beginning in the preschool years and continuing through the teenage years often do not resolve in adulthood. Kouritzin (1999), in a moving account of adults till grappling with long-held feelings of alienation, isolation, and struggle, explores the consequences of not fitting in, of identities in limbo. In considering the significance of these feelings, the question that arises is: what are the long-term repercussions of learners not building a solid identity with their home culture and first language—to the individual, and to society?

Beyond identity issues, language must be looked at as a cultural commodity. According to Kouritzin (1999), language can be seen as a symbolic system (phonology, morphology, syntax, etc.), *or* it can be seen as a cultural commodity that encompasses both language vitality and survival, a rich variety of uses, a wide range of speakers, and the “human factor” (p. 19) which involves both identity and culture. The issues that all educators must now face—especially those involved with ESL learners—and the questions that must be asked include:

- Has the focus been too narrowly on language as a symbolic system?
- If the L1 had an actual currency, what would it be?
- What value does multilingualism have in a global economy?
- What value does multiculturalism have in a global world?
- What impact does the push for English (with the all-too-frequent concurrent loss of the L1) have on school achievement in learners?
- What is currently known regarding the L1 as the foundation for the L2, not just with language acquisition, but also with literacy development?
- What could be done in each and every school to better support additive bilingualism?
- What impact does the push for assimilation (and loss of the L1 culture) have on learners both with school achievement and with emotional development?<sup>4</sup>
- What does the push towards monolingualism (in this case, English) do to a learner who lives in a bilingual world (a micro-culture within the larger macro-culture)?

Wong Fillmore (1991, as cited in Genesee et al., 2004) eloquently captures the loss experienced by families in flux when she states:

What is lost when children and parents cannot communicate easily with one another?

What is lost is no less than the means by which parents socialize their children: When parents are unable to talk to their children, they cannot easily convey to them their values, beliefs, understandings, or wisdom about how to cope with their experiences. They cannot teach them about the meaning of work, or about personal responsibility, or what it means to be a moral or ethical person in a world with too many choices and too few guideposts to follow...Talk is a crucial link between parents and children: It is how parents impart their cultures to their children and enable them to become the kind of men and women they want them to be. When parents lose the means for socializing and influencing their children, rifts develop and families lose the intimacy that comes from shared beliefs and understandings. (p. 343)

This, then, raises the question of how can the L1 be increased in value so that it has a higher currency/commodity rating, and by so doing, decrease the chances of stagnation or attrition that lead to the heartache of which Wong Fillmore passionately speaks?

In closing, as members of the global community, several final questions must be asked: what is the human toll and economic loss resulting from language stagnation and loss? And as ESL specialists, what, more specifically, can teachers do? Wong Fillmore (2000) begins this discussion by offering some suggestions for educators; what might the MITESOL community, and each member individually, add – and then implement?

<sup>1</sup>For a fuller review of language attrition theories, see de Bot & Weltens (1995); Kopke, Schmid, Keijzer, & Dostert (2007); and Hyltenstam, Bylund, Abrahamsson, & Park, 2009.

<sup>2</sup>For an interesting article documenting language loss in three longitudinal case studies, see Kuhberg, 1992.

<sup>3</sup>In a current, informal survey of university faculty who teach children's literature, including the impact of the media on literacy, no superhero could be identified that was bilingual. Of additional concern, no female superheroes

could be identified who continued in strength on their own, rather than in a supporting role, other than possibly Buffy the Vampire Slayer for older audiences.

<sup>4</sup>For discussions on the importance of supporting the L1 in the academic setting, as well as suggestions for teachers, see Egbert and Ernst-Slavit (2010, specifically Chapter 2) and Samway and McKeon (2007, especially Chapter 3).

### **Author Note**

Christen M. Pearson, Associate Professor, English Linguistics and TESOL, Grand Valley State University. The author would like to thank the following colleagues for their helpful input on current superheroes: Patricia Bloom, Barbara Schneider, and Jill Warren.

### **References**

- Anderson, R. W. (1982). Determining the linguistic attributes of language attrition. In R. D. Lambert & B. F. Freed (Eds.), *The loss of language skills* (pp. 83-118). Rowley, MA: Newbury House.
- Anderson, R. W. (1983). Transfer to somewhere. In S. M. Gass & L. Selinker (Eds.), *Language transfer in language learning* (pp. 177-201). Rowley, MA: Newbury House.
- Bardovi-Harlig, K., & Stringer, D. (2010). Variables in second language attrition. *Studies in Second Language Acquisition*, 32, 1-45.
- Berko-Gleason, J. (1982). Insights from child language acquisition for second language loss. In R. D. Lambert & B. F. Freed (Eds.), *The loss of language skills* (pp. 13-23). Rowley, MA: Newbury House.
- de Bot, K. (2004). Introduction: Special issue on language attrition. *International Journal of Bilingualism*, 8(3), 233-237.
- de Bot, K., & Weltens, B. (1995). Foreign language attrition. *Annual Review of Applied Linguistics*, 15, 151-164.
- Ecke, P. (2004). Language attrition and theories of forgetting: A cross-disciplinary review. *International Journal of Bilingualism*, 8(3), 321-354.

- Egbert, J. L., & Ernst-Slavit, G. (2010). *Access to academics: Planning instruction for K-12 classrooms with ELLs*. Boston: Pearson.
- Faulstich Orellana, M. (1994). *Superhuman forces: Young children's English language acquisition and Spanish language loss*. Paper presented at the Annual Meeting of the American Educational Research Association, New Orleans, LA.
- Genesee, F., Paradis, J., & Crago, M. B. (2004). *Dual language development & disorders: A handbook on bilingualism & second language learning*. Baltimore: Paul H. Brookes Publishing.
- Gindis, B. (2008). What adoptive parents should know about language-based school difficulties of their children. *The Family Focus*, 13(4), 4-5.
- Guiberson, M. M., Barrett, K. C., Jancosek, E. G., & Itano, C. Y. (2006). Language maintenance and loss in preschool-age children of Mexican immigrants: Longitudinal study. *Communication Disorders Quarterly*, 28(1), 4-17.
- Hakuta, K., & D'Andrea, D. (1992). Some properties of bilingual maintenance and loss in Mexican background high-school students. *Applied Linguistics*, 13(1), 72-99.
- Hansen, L. (2001). Language attrition: The fate of the start. *Annual Review of Applied Linguistics*, 21, 60-73.
- Hyltenstam, K., Bylund, E., Abrahamsson, N., & Park, H-S. (2009). Dominant-language replacement: The case of international adoptees. *Bilingualism: Language and Cognition*, 12(2), 121-140.
- Jakobson, R. (1941). *Kindersprache, Aphasie und allgemeine Lautgesetze*. Uppsala: Almqvist & Wiksell.
- Kaufman, D., & Aronoff, M. (1991). Morphological disintegration and reconstruction in first language attrition. In H. Seliger & R. Vago (Eds.), *First language attrition* (pp. 175-188). New York: Cambridge University Press.
- Keijzer, M. (2004). First language attrition: A cross-linguistic investigation of Jakobson's regression hypothesis. *International Journal of Bilingualism*, 8(3), 389-393.
- Kopke, B. (2004). Neurolinguistic aspects of attrition. *Journal of Neurolinguistics*, 17, 3-30.

- Kopke, B., Schmid, M. S., Keijzer, M., & Dostert, S. (2007). *Language attrition: Theoretical perspectives*. Amsterdam: John Benjamins.
- Kouritzin, S. G. (1999). *Face[t]s of first language loss*. Mahwah, NJ: Lawrence Erlbaum.
- Kuhberg, H. (1992). Longitudinal L2-attrition versus L2-acquisition, in three Turkish children – Empirical findings. *Second Language Research*, 8(2), 138-154.
- Leonard, L. (1998). *Children with specific language impairment*. Cambridge, MA: MIT Press.
- Montrul, S. A. (2008). *Incomplete acquisition in bilingualism: Re-examining the age factor*. Philadelphia: John Benjamins Publishing Company.
- Paradis, M. (1997). The cognitive neuropsychology of bilingualism. In A. M. B. de Groot, & J. F. Kroll (Eds.), *Tutorials in bilingualism: Psycholinguistic perspectives* (pp. 331-354). Mahwah, NJ: Lawrence Erlbaum.
- Paradis, M. (2007). *A neurolinguistic theory of bilingualism*. Amsterdam: John Benjamins.
- Pearson, C. (2009, January). Keynote Address. *Language delay vs. language disorder in ESL learners: What are the warning flags? and What can teachers do?* 6<sup>th</sup> Annual ESL Endorsement Conference, English Language Institute, University of Michigan, Ann Arbor, MI.
- Pearson, C. (2008b, Fall). First language attrition in internationally adopted children. *The Family Focus*, Families for Russian & Ukrainian Adoption (FRUA).
- Pearson, C. (2008a). The case of the missing piece: Using language structure to decipher delay v. disorder in ESL children. *Selected Proceedings of the 2007 MITESOL Conference* (pp. 41-54). East Lansing, MI: Michigan State University.
- Pearson, C. (2004, June). *Diversity x 2: The SLI ESL child*. Paper presented at the annual meeting of the Pi Lambda Theta, Great Lakes Region II Conference. Fort Wayne, IN.
- Pearson, C. (1997, February). Language loss in internationally adopted children. American Speech-Language-Hearing Association (ASHA) Special Interest Division 14 Newsletter:

*Communication Disorders and Sciences in Culturally and Linguistically Diverse Populations*, 3(1), 5-8.

- Samway, K. D., & McKeon, D. (2007). *Myths and realities: Best practices for English language learners* (2<sup>nd</sup> ed.). Portsmouth, NH: Heinemann.
- Schiff-Myers, N. B. (1992). Considering arrested language development and language loss in the assessment of second language learners. *Language, Speech, and Hearing Services in Schools*, 23, 28-33.
- Seliger, H. (1989). Deterioration and creativity in childhood bilingualism. In K. Hyltenstam & L. K. Obler (Eds.), *Bilingualism across the lifespan* (pp. 173-184). New York: Cambridge University Press.
- Seliger, H. (1991). Language attrition, reduced redundancy, and creativity. In H. Seliger & R. Vago (Eds.), *First language attrition* (pp. 227-240). New York: Cambridge University Press.
- Sharwood Smith, M. A. (1989). Crosslinguistic influence in language loss. In K. Hyltenstam & L. K. Obler (Eds.), *Bilingualism across the lifespan* (pp. 185-201). New York: Cambridge University Press.
- Sharwood Smith, M. A., & Van Buren, P. (1991). First language attrition and the parameter setting model. In H. W. Seliger & R. M. Vago (Eds.), *First language attrition* (pp. 17-30). New York: Cambridge University Press.
- Tsimpli, I., Sorace, A., Heycock, C., & Filiaci, F. (2004). First language attrition and syntactic subjects: A study of Greek and Italian near-native speakers of English. *International Journal of Bilingualism*, 8(3), 257-277.
- Turian, D., & Altenberg, E. P. (1991). Compensatory strategies of child first language attrition. In H. Seliger & R. Vago (Eds.), *First language attrition* (pp. 207-226). New York: Cambridge University Press.
- Vago, R. M. (1991). Paradigmatic regularity in first language attrition. In H. Seliger & R. Vago (Eds.), *First language attrition* (pp. 241-251). New York: Cambridge University Press.
- Viberg, X. (1993). Crosslinguistic perspectives on lexical organization and lexical progression. In X. Hyltenstam & X. Viberg (Eds.),

*Progression et regression in language: Sociocultural, neuropsychological et linguistic perspectives* (pp. 340-385).  
New York: Cambridge University Press.

Wong Fillmore, L. (1991). When learning a second language means losing the first. *Early Childhood Research Quarterly*, 6, 323-346.

Wong Fillmore, L. (2000). Loss of family languages: Should educators be concerned? *Theory into Practice*, 39(4), 201-210.

Yukawa, E. (1997). L1 Japanese attrition of a 5-year-old bilingual child. *Japan Journal of Multilingualism and Multiculturalism*, 3, 1-22.