

# Developing Students' Autonomy And Self-Regulation Through A Co-Teaching Research Methods Experience

Maria G. Fabregas Janeiro, Oklahoma State University, United States  
Martha L. Gaeta González, UPAEP University, Mexico

## ABSTRACT

*The College of Human Sciences at Oklahoma State University (OSU) and Universidad Popular Autónoma del Estado de Puebla (UPAEP) decided to offer Pedagogy Doctoral students from Mexico a 3 week co-teaching research methods experience. Two professors, one from each institution (OSU and UPAEP), designed the syllabus to offer a co-teaching experience in the United States. The objective of the course was to enhance students' success in their research dissertation project, contributing to develop students' autonomy and self-regulation while offering Mexican students an international experience at OSU and at the same time allowing students to access OSU facilities, including the library databases and different research software. Two evaluations were conducted to assess the effectiveness of the course and the impact in the students' autonomous learning. The first assessment was conducted at the end of the course through a semi-structured personal interview. The second evaluation was conducted six months after concluding the experience and included one on-line survey. During both evaluations the students agreed that a co-teaching experience was beneficial because the course combined two kinds of expertise and the teaching styles of both professors. The study concluded that co-teaching experience was useful in the students' journey to become autonomous learners and the level of understanding of the topics studied, the students' self-directed and self-regulated process and the achievement of the students' expectations.*

**Keywords:** Co-Teaching; Self-Regulation; Self-Directed Learning; Autonomous Learners

## INTRODUCTION

There is a growing interest in studying teaching practices that could prove its effectiveness to encourage students to become autonomous learners; taking responsibility for their own learning and being able to self-regulate (Bacharach, Heck & Dahlberg, 2008; Betts, 2004; Graziano & Navarrete, 2012; McCombs, 2014.), to better prepare them with the skills, attitudes and knowledge to succeed in school and to become lifelong learners after leaving their formal education.

Becoming autonomous learners is especially important for Doctoral students who finalize their course work and start conducting/writing their dissertation. Doctoral advisors and higher education institutions have different ways to encourage students to finish their doctorate; most of the support comes in the form of advice and encouragement (Miller, 2003). Other authors suggest actions as setting deadlines, learning to handle feedback, setting goals, and selecting a committee that would like to work with you (Hedge, 2013).

There is also information related to the students' failure to complete their dissertations. The University of Columbia, mentioned that students do not finish their dissertation because the task overwhelmed them and the students are overpowered by negative thoughts (2014). It is not uncommon to find students who face difficulties to concentrate and self-regulate during this process (Harris, Schmidt & Graham, 1997; Santangelo, Harris & Graham, 2008; Zimmerman & Reiserberg, 1997).

Self-regulated learning is considered an important factor for effective learning and academic achievement (Zimmerman, 2008). It refers to “an active constructive process whereby learners set goals for their learning and monitor, regulate and control their cognition, motivation, and behavior, guided and constrained by their goals and the contextual features of the environment” (Pintrich, 2000, p.453). This definition recognizes that self-regulation is a complex process that needs systematic practice. Therefore students need advice on goal setting, learning strategies, motivation, monitoring and self-assessment (Cheng, 2011) in order to acquire their academic goals.

Motivation and empowerment could potentially improve students’ autonomy and self-regulation. But at the end, doctoral students who are ready to conduct a dissertation should be able to manage their own learning process (Clifford, 1999; McCombs, 2014). However, the majority of the students who finished their course work need more support to successfully conduct their dissertation, since many of them have difficulties learning how to learn, as an objective to reach their academic objectives (Rosario, Pérez & Pienda, 2004).

Higher education institutions interested in students’ degree completion/graduation are designing and conducting different strategies, these strategies have the goal of supporting the journey through the dissertation process, advising and accompanying them in different ways. The majority of those suggestions include practical actions to finish your dissertation but do not include developing students autonomy and self-regulation (Kristsonis, 2008).

Therefore, it is necessary to develop relevant teaching strategies to guide students in making their learning plans, chose their learning strategies, monitor and evaluate their learning process, and make the adjustments if necessary (Cheng, 2011; Zimmerman, 2008).

In an effort to develop doctoral students’ autonomy and self-regulation in the construction/completion of their dissertation, the College of Human Sciences at Oklahoma State University (OSU) and Universidad Popular Autónoma del Estado de Puebla (UPAEP) decided to offer Pedagogy Doctoral students from Mexico a 3 week co-teaching research methods experience. Two professors, one from each institution (OSU and UPAEP), designed the syllabus to offer a co-teaching experience in the United States.

The objective of the course was to enhance students’ success in their research dissertation project, contributing to develop students’ autonomy and self-regulation while offering Mexican students an international experience at OSU and at the same time allowing students to access OSU facilities, including the library databases and different research software.

## **METHOD**

### **Course Design**

The co-teaching experience included the participation of two bilingual (Spanish and English) professors one from each university. The structure of the co-teaching experience included 45 face to face hours/class and academic free time to work on their dissertations. Face to face classes were offered at Oklahoma State University in the United States.

The process to conduct this class started with the syllabus design and selection of the student participants by both professors. The class topics included: 1) introduction to the publication process, 2) academic electronic data bases and reference management software, 3) qualitative and quantitative research design, 4) publication according to the American Psychological Association (APA). Both professors also reviewed the students’ draft doctoral projects during the course, discussed and gave opportunities for reflection, and gave the necessary feedback in a timely manner to improve and accelerate the dissertation construction process and to empower students as self-regulated learners.

## **Population**

The target population consisted of 9 Mexican doctoral students who were writing their dissertation and who enrolled in a co-teaching experience at Oklahoma State University for three weeks during the summer of 2013. 6 female and 3 males students, between 31 and 51 years of age ( $X=43.67$ ;  $SD=6.67$ ) participated in the course.

## **Research Design and Data Analysis**

This study used a survey research design to analyze students' perceptions about the co-teaching experience. The sample procedure used was census sample. Investigators asked the entire population of students, who participated in the course to answer the face to face interview and online written survey. This survey design could be consider as a longitudinal study, where the researchers study trends in the same population over time (Creswell, 2005). The data collected were analyzed using qualitative and quantitative methods.

## **Instrumentation**

Two evaluations were conducted to assess the effectiveness of the course and the impact in the students' autonomous learning. The first assessment was conducted at the end of the course through a semi-structured personal interview. The second evaluation was conducted six months after concluding the experience and included one on-line survey.

The first assessment, conducted at the end of the three weeks experience included the following questions: 1) Does the UPAEP-OSU Co-teaching experience contributed to improve your doctoral dissertation? In what sense? 2) Do you think that this co-teaching course contributed to the development of your academic autonomy? 3) Which were the main factors that contributed to develop your academic autonomy? 4) Do you think that you have improved your self-regulation strategies? How?

The second evaluation was conducted on line. The evaluation included two sections, the first section evaluated the effectiveness of the experience (46 questions), the second section evaluated the quality of the services provided by the UPAEP Faculty Led office in Mexico and the UPAEP office in the United States (22 questions). The 68 questions were evaluated using five Point Likert-type scales. The evaluation also included 5 open-ended questions.

## **RESULTS**

### **Co-Teaching Experience**

During both evaluations the students agreed that a co-teaching experience was beneficial because the course combined two kinds of expertise and the teaching styles of both professors. The students concluded that the co-teaching experience was useful in their journey to become autonomous learners.

### **First Evaluation**

When the course was over, the professors interviewed the students. During the interview the students mentioned that the course was important in their research processes as doctoral students, which also provided them with tools that they had not used before, like databases and software.

*It [the course] benefited me a lot; when I came here I had investigated on the main topic, and had formulated the research question and the investigation objective, but I was not clear on how I would develop the research; now with the seminar I have a very clear idea on what it is that I'm going to do and how I will do it (M., female, 46 years old).*

*I acquired specific knowledge that helped me to design my methodological framework, which was an aspect where I had many doubts, and here I could even develop it (D., male, 51 years old).*

*It [the course] helped me a lot because it gave me a lot of clarity, the advice that you [the teachers] gave me was excellent; start writing my own ideas and then contrast them with the authors' ideas (C., female, 45 years old).*

*[In the course] we were given essential tools, from theoretical concepts and how they relate to applied research, research methods,... all the technological tools... It is an advantage to be able to access different databases ...to know also how to import to Endnote, how to save your quotes,... the training we got here was very good... All of these were obviously supported by very good teachers; without you and without the materials and equipment we could had not done it (A. male, 36 years old).*

The students also mentioned that during the course they had time to reflect and write their proposals.

*Here [at OSU] we had another context, and we did not have the everyday activities; I therefore had more time... after school I used to work at the library ... (A. male, 36 years old).*

*Being away from home was very good since I had more time to concentrate and write... I feel more focused (D., male, 51 years old).*

Motivation and definition of strategies to persevere in their research project, allowing them to self- manage their learning, was also achieved during the course.

*“This course gave me a lot of motivation that makes me feel it is not so difficult to finish the dissertation ... I just have to spend time and be systematic ...it has helped me to know that I have to manage my time (B., female, 49 years old).*

*Now I know I need to make a plan to work in... After a period of time, say fifteen days, I need to analyze my progress on that plan (N., male, 49 years old).*

*With teachers like you, that transmit energy and are empathic and motivate us to say “yes you can”, one gets full of energy and is positive... I really want to continue the investigation even if it is very hard ... To train researchers, the right tools should also be given... (M., female, 46 years old).*

The teaching strategies used by the professors as discussion/reflection and continuous feedback were determinant in the effectiveness of the course and the development of students as autonomous self-regulated learners.

*They [the teaching techniques] helped me a lot ... they allowed me to have more clarity about the type of work that I can develop, which I can design myself... it allowed me to have an improvement in the research construction ... all the process allowed me to make several internal questions to define our work (N., male 49 years old).*

*Definitely it [the course] has favored me, because from now I have more clarity on the construction of the thesis... now I'm no longer expecting someone else to solve this part of “emptiness” that I had as to how to continue my research by myself (E., female, 31 years old).*

*I used to ask my dissertation chair all the time, and couldn't do anything without asking him... now, being here and away from him I had to make my own decisions...you both [the teachers] gave us the guidance...now I am committed (C., female, 45 years old).*

*I've realized that if I'm interested in my research topic, I'm the one who has to seek ways to investigate about it; thank you very much because you have given us a clearer picture and have given us a great guidance (M., female, 46 years old).*

*I feel very happy, very satisfied and we all agreed [my classmates and I] that this was the best investment we have made in our academic life ... because of the knowledge and experience you both [the teachers] have shared with us (D., male, 51 years old).*

## **Second Evaluation**

Eight students out of 9, who participated in the experience (89%), answered the second evaluation, six months after the experience. The results showed that attending the course was instrumental in the students' professional development. It had an impact in their research project and motivated students to become a research professor mainly because the course changed their perception about the research process. The course provided students with tools (e.g. data bases and software) that had not been used before and promoted the discussion and debate, forcing students to see things in a different way.

## **DISCUSSION**

### **Co Teaching**

Research findings show that co-teaching is a valuable tool to provide students with different perspectives and experiences of reflection and support, promoting independent and responsible practice in the construction of their own learning. These findings agreed with Bacharach, Heck & Dahiberg (2008a) and Graziano & Navarrete (2012), both articles mentioned the benefits of co-teaching experiences for the students, they emphasize that co-teaching individualize instruction and improve learning experience, as well as promote equitable learning opportunities for all the students.

Coordinate a co-teaching experience could be a challenge. However, in this case, the two faculty members who participated in the co-teaching experience worked together since the beginning. Both professors are from different universities located in different countries, however they share common interests. They created the syllabus, review the students' applications and design/conducted the course in a very professional and relaxed environment, even though their teaching skills and styles were different. Both professors were bilingual, professionals, and experts in Research Methods. They have different experiences but each one offered its talent to design and conduct the class. Authors mentioned problems associated to co-teaching experiences, as difficulty to coordinate the preparation of the course, they also mention the critical factors that should be addressed while designing the course (Graziano & Navarrete, 2012; The National Council for Accreditation of Teacher Education, 2010; Murawski & Dieker, 2008 ; Sileo, 2011).

There is a great interest to motivate professors to be engaged in co-teaching teams. Administrators in higher education institutions are supporting this idea (Kamens, Susko & Elliott, 2010). However, there are inconsistencies and lack of knowledge of the procedure to conduct this experience. This could be a great opportunity for professors interested in co-teaching; they could develop documents with implications for practice and potentially research opportunities. As higher education institutions begin using and promoting co-teaching models, more research will guide the development of strong and successful co-teaching partnerships (Bacharach, Heck & Dahlberg, 2008b).

Benefits of co-teaching include improved teachers' confidence, interest, and attitudes (Pancsofar & Petroff, 2013; Takala & Uusitalo-Malmivaara, 2012). In this case, both professors mentioned that the co-teaching experience was a powerful tool to improve their teaching abilities. The professors mentioned:

*“Co-teaching a research seminar at OSU was a unique, very enriching experience both academically and personally. I really enjoyed working with Dr. Fabregas, who is a very enthusiastic and professional professor and also a great human being. I learned a lot from her and we worked very well together. The students were very motivated and made a good improvement in their PhD dissertations. This was a great experience which I recommend to all my colleagues.”*

*Dr. Martha Leticia Gaeta*

*“This experience was one of the most amazing opportunities in my teaching career. I learned so much from Dr. Gaeta and my students. The students worked very hard and never complained. Our teaching team worked very well, we complimented each other. Dr. Gaeta is a very strong theory based researcher and I am a very pragmatic professor, I truly enjoyed the experience and I hope we can do it again.”*

*Dr. Maria G. Fabregas*

### **Autonomy and Self-regulation**

The result showed that co-teaching experience was effective and provided students with different perspectives and a broader point of view, enhanced students' support, maximized the time of the students, increased adult students' attention and a more powerful self-directed learning process. The students mentioned that during the course they had time to reflect and write their proposals. Motivation and definition of strategies to persevere in their research project, allowing them to self-manage their learning, was also achieved during the course. The teaching strategies used by the professors as discussion/reflection and continuous feedback were determinant in the effectiveness of the course and the development of students as self-regulated learners. In agreement with Nicol & Macfarlane-Dick (2006), when students are assumed to occupy an active role in their own academic functioning and are given the opportunities to practice self-regulatory aspects of their own learning as well as good feedback on their practice, they will have a better opportunity to become self-regulated learners.

The second evaluation, six months after the experience, showed that attending the course was instrumental in the students' professional development. It had an impact in their research project and motivated students to become a research professor mainly because the course changed their perception about the research process. The data seems to support the point made by Monereo (2001) that the teacher's performance definitely encourages students to use a number of procedures and mental skills that will enable them to gain autonomy in organizing and managing their study.

During both evaluations the students agreed that a co-teaching experience was beneficial because the course combined two kinds of expertise and the teaching styles of both professors. Our findings show that co-teaching is a valuable tool to provide students with different perspectives and experiences of reflection and support, promoting independent and responsible practice in the construction of their own learning. The students concluded that the co-teaching experience was useful in their journey to become autonomous learners.

The information collected from the students agrees with McCombs (2014) discussion. McCombs (2014) mentioned the importance of the connection between students' motivation and self-determination. Motivation is related to the students' opportunities to be autonomous and make important academic choices. Doctoral students, who are autonomous learners, will survive outside the sheltered environment of the classroom (St. Louis, R. 2003), and will successfully finish their doctoral program. Betts (2004), agrees with the authors of this paper when he mentioned that "the education of the gifted and talented is the development of the student as an independent, self-directed life-long learner. In other words, to help students develop as autonomous learners, with the appropriate skills, concepts, and attitudes necessary for their journeys."

Other authors discussed how higher education institutions are able to develop learner autonomy (Clifford & Mulcony, 1999; Soler, Rueda & Arno, 2005), they mentioned online courses and asking the students to participate in curriculum development, collaborative learning and self-peer-assessment. However, they did not mention the developing of autonomous learners through co-teaching experiences.

Finally, students need time to develop their proposals, write and reflect while conducting their dissertation, full immersion experiences, as the one used in this study give the students those opportunities. Even highly skilled professionals require time to develop their self-regulatory abilities (Harris, Schmidt & Graham, 1997; Zimmerman & Reiserberg, 1997).

### **CONCLUSIONS**

Based on our results this study has contributed to the knowledge that co-teaching enhances students' support, maximizes the time of the students, increases adult students' attention, and a more powerful self-directed learning process, through more individualized research-based practices. In the opinion of students and teachers the level of understanding of the topics studied and the students' self-directed and self-regulated process were increased and the students' expectations were achieved. Co-teaching experience was therefore useful in the students' journey to become autonomous learners, which has positive effects on academic attainment and positive attitudes towards personal academic progress.

There is little doubt that co-teaching is a valuable tool to provide students with different perspectives and experiences of reflection and support promoting independent and responsible practice, in the construction of their own learning. Hence, we recommend universities and other institutions to make efforts to engage participation of teachers in co-teaching experiences if they want to develop successful life-long learners.

#### **AUTHOR INFORMATION**

**Maria G. Fabregas Janeiro**, College of Human Sciences, Oklahoma State University, Stillwater, Oklahoma 74075.  
E-mail: Lupita.Fabregas@okstate.edu

**Martha L. Gaeta González**, Centro Interdisciplinario de Posgrado, UPAEP University, Mexico

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