

Universidad Veracruzana - Final Report

Jorge Luis Romeu
Speaker Specialist Grant
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Introduction

On May 22nd past I received a Fulbright Speaker Specialist Grant (#590) to work for six weeks this summer at Universidad Veracruzana (UV), a state-wide system with siege in Xalapa, Veracruz, Mexico,. The assignment included the following activities:

1. Lead a series of demonstrations for faculty to learn about the use of certain computer based simulation programs for instruction and research purposes
2. Teach teachers how to use Minitab and GPSS software computer systems
3. Introduce techniques to support distance education programs
4. Conduct several video conference seminars from the Xalapa campus with extension sites in four other cities in Veracruz
5. Stimulate teachers and students to work in teams to complete contextual projects
6. Promote exchanges between Syracuse University (SU) and Veracruzana.

The time frame to complete this six weeks assignment was from June 23rd to August 2nd. This document reports on the successful completion of the said assignment.

Our background successfully teaching statistics, computer science and operations research for thirty years, in American and Iberoamerican universities, using statistical and simulation software as well as an array of other classroom technologies, our bilingualism in Spanish and English and knowledge of the social environment in Mexico, made possible that we could accomplish all the above-mentioned goals in the six week period allotted. In addition, the fact that we are also Director of the Juarez Lincoln Marti Project (<http://web.cortland.edu/matresearch>) made possible the addition, at no extra cost either to Fulbright or the host institution, of a series of supplementary activities.

Work Done

The work we performed at UV can be divided into three categories: workshops, research and contacts, and additional activities. The latter of the three, is the result of the Juarez Lincoln Marti Project connection.

A) Workshops

We conducted four workshops on Educational subjects, at UV. All workshops consisted of four hours of classroom instruction, either in the morning or the afternoon session. In the other session, the participating faculty would gather in study groups to work on assignments and projects, for no less than two hours every day. The last day of each workshop, every faculty study group presented a Final Project, on a (contextual) topic of their choice, where they applied (to a field of their interest) the material covered in the workshop. The final projects should specifically cover:

- (1) reasons for introducing new technology and their corresponding pedagogical methodology in the curriculum selected,
- (2) causes and nature of the problems driving such infusion decision,
- (3) specific methodologies and technologies to be introduced (and how would this be done),
- (4) how are these technology and pedagogical innovations going to be measured, and
- (5) how do they plan to integrate the infusion into the existing system.

All projects were then critiqued both by the faculty colleagues and by myself. Passing the workshop required 80% or more of attendance, plus the presentation of the final project (samples of which have been previously submitted, by email, to Fulbright)..

The first workshop (one week long) was taught at the School of Statistics. It covered the use of Minitab statistical software as a teaching tool, in conjunction with the use of other methodologies such as learning groups, contextual projects, the use of the internet, and email and web support. A total of 15 faculty members and senior level students passed this workshop.

The second workshop (also one week long) was taught at the School of Statistics. It covered the use of GPSS simulation software, both as a teaching and as a research tool, and also in conjunction with the use of learning groups, contextual projects, the internet and email and web support. A total of 38 faculty and senior level students passed this workshop.

The third workshop (now, two weeks long) was taught at the School of Education. It covered the use of new technologies (such as education software, videos, computers, projectors, elmo) and their supporting pedagogy (e.g. learning groups, contextual projects, the internet and email and web support). A total of 15 faculty members passed this workshop.

The fourth and last workshop (one week long) was taught via distance learning (using video conference facilities) to the five main campuses of UV (Poza Rica, Veracruz Puerto, Orizaba, Coatzacoalcos) from the main facilities at the UV, Xalapa center. A total of 81 faculty members passed this workshop (our of one hundred initial participants).

We summarize these workshop results in the following table:

Week	School	Topic	Length (days)	Passed Course
First	Statistics	Minitab-Ed	5	15
Second	Statistics	GPSS-Ed	5	38
Third/Fourth	Education	Ed. Methods	10	15
Fifth	Xalapa	Ed. Methods	5	28
Fifth	Veracruz	Ed. Methods	5	10
Fifth	Orizaba	Ed. Methods	5	11
Fifth	Poza Rica	Ed. Methods	5	21
Fifth	Coatzacoalcos	Ed. Methods	5	11
Fifth	Total DL Course	Ed. Methods	5	81
All Five Weeks	Overall Total	All Methods	25	159

A total of 159 persons, the overwhelming majority of them faculty members, completed workshop training (only in the first two workshop, on Minitab and GPSS, some graduating seniors were allowed to participate; also about 20% more started workshops but did not fulfill the passing requirement). In addition, two specific workshop products stayed behind. From the GPSS/Minitab workshops, a library of educational software programs was started. From the system-wide, distance learning workshop, the final projects delivered by the participants will be collected in a diskette. This diskette will then be distributed to other faculty in UV and used for further training throughout the system. Finally, a formal proposal for establishing an annual CIT, (conference on instructional technologies) such as the one the SUNY system develops yearly for its own faculty, was delivered to UV administration (see appendix).

B) Research and contacts

One of our main objectives was to establish the contacts to start an (SU and UV) exchange of students (seniors) with the objective of performing research during the summer, with the faculty of the other university. That is, SU students will go to UV to undertake research during the summer with faculty in the Instituto de Investigacion de Ingenieria, in the Port of Veracruz. And UV students will come to SU to do likewise with the faculty in the Department of Mech., Aero. and Manuf. Engineering. At this time, this researcher is writing an NSF proposal to be submitted on September 16, for the REU (Research Experience for Undergraduates) program, which will support such an exchange.

In addition, we established contacts and links with other faculty at the Instituto de Ingenieria who are interested in ecological problems. We are interested in modeling aquatic ecosystems via simulation and have, in the past, submitted proposals on this subject to NSF. We are also currently giving a paper on this subject (which we completed during our stay in Mexico) to the Conference of the Federal Committee on Statistical

Methodology, in Washington DC, this coming November. Finally, we established contacts with researchers at the Instituto de Ecologia, a Mexican federal research institution in Xalapa, with the intent of pursuing joint research in simulation modeling of ecological systems..

C) Additional Activities

As we already mentioned, we direct the Juarez Lincoln Marti International Education Project. During this Grant, the Juarez Project donated fourteen science, mathematics and humanities textbooks (market value above US\$500) to UV. In addition, an Educator from Central New York came to Xalapa and gave a presentation (at no cost to UV) about the New York State High School system, multicultural education (including Hispanics, African and Native American students) and other HS issues. A second US faculty, specialized on Latin American Women Literature, unable to visit Xalapa at this time, sent three of her books for UV library and made a commitment to come next year, when we return to UV.

In addition to our Fulbright Senior Specialist teaching activities, we participated in five forums, open to all UV faculty, and gave the following talks:

1. Design and Evaluation of Ecosystems via Simulation, and its Economic Consequences (at the School of Statistics).
2. Minitab and Pizza: an example of Research Project in Statistical Education (also at the School of Statistics).
3. An Experiment to Evaluate the Effects of Student Flexibility in SUNY (at the School of Education)
4. Design and Optimization of Ecosystems via Simulation (at the Instituto de Ingenieria)
5. Inaugural Keynote Address for the Masters Program in Applied Statistics: Statistical Education (at the School of Statistics).

During our workshop at the School of Education we found out about UV interesting exchange programs with the Universities of Arizona and Southern Georgia, where teachers come for a stage at UV. We found this program extremely interesting for our Syracuse context. Hence, we contacted, at our return, several institutions with the objective of informing them of such an exchange program with UV. These contacts included several SU faculty in the Department of Education, the Chair of the Education Department at Le Moyne College and several administrators in the Syracuse City School District. In addition, were arranged new contacts between faculty members of the Music Department at Onondaga Community College and the Music Department at UV, in Xalapa.

Finally, we frequently write in American newspapers about Latin America. We took advantage of this opportunity to learn more about Mexico, and then wrote two articles (one in Spanish and another in English) about the midterm Mexican elections that took

place during our Fulbright stay in Xalapa. The articles were published in Syracuse and Miami newspapers.

Issues and Discussion

During our stay in Xalapa we had the opportunity to live in a Mexican home (the residence used by UV to accommodate foreign, long-term, visiting professors). We had the opportunity to participate in the daily life of our Mexican colleagues. And they were able to verify how people from the US are sincerely interested in establishing links and contacts with them, and providing them with technical aid. In these times of wars, terrorism and violence, such example of peaceful cooperation is of particular value and was noticed by our hosts.

We spent many long days (of more than eight hours) and many weekends, in preparing and teaching our workshops and in other above-mentioned extra curricular activities. However, this work was more than rewarded with the satisfaction of participating in the Fulbright endeavor and with the opportunity of learning more about Mexico and the State of Veracruz.

We thus obtained a clearer picture of what is occurring in contemporary Mexico, which is living in the midst of a transition from an hegemonic party system, to one of political pluralism, and from a state-oriented economic system, to a market economy. And we were able to share our experiences, with Central New York and Southern Florida readers, via our newspaper and radio journalism activities.

Conclusions

The total cost of the Speaker Specialist Grant we received from the Fulbright and the US Department of State (including airfare and stipend) is only a four-digit figure. With this support, in four workshops a total of 159 Mexican faculty and students were trained. If each one of these faculty teaches for only ten years, and only six courses per year. And, if in each course there are only 30 students on average (and these are very conservative estimates, by Mexican teaching loads) this Grant will have benefited, one way or another, more than a quarter of a million students over the life of these workshops participants. One way to assess the cost-effectiveness of this Fulbright Speaker Specialist Grant is to divide the total cost of sending us abroad, by the number of students it will impact. The resulting cost per student benefited, in the long range, by the teachers trained here, comes out to less than \$1.00!

In addition, our Fulbright Grant has helped start an entire student exchange program and has allowed the Juarez Lincoln Marti Project (which had taught a short workshop at UV in 2000) to work again with the UV. Finally, we had the opportunity to attend, one week ago, the Biennial Conference of the International Statistical Institute, in Berlin, where we presented an Invited Paper, to the special session on international education research, on the Juarez Project work.

We took advantage of this opportunity to elaborate on the exciting opportunities that developing countries have, in receiving Fulbright Speaker Specialists. This arose much interest among the session participants. For example, a former Fulbrighter to Latin America, who was unaware of this new Program and found out through our talk, has already contacted Fulbright with the intention of submitting his candidacy for the Roster.

We welcome the opportunity to contribute again, to the enhancement of the Education in Third World and Developing countries, through this Speaker Specialist Program, thus serving at the same time the society that we came from and that where we have inserted ourselves.

Thank-you.

Jorge Luis Romeu, Ph.D.
Senior Speaker Specialist

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Appendix

Propuesta de una “Conferencia sobre Tecnología Educativa” en la UV.

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Profesor Investigador de Syracuse University

Especialista Fulbright-García Robles, visitante de la UV

Director del Proyecto Educativo Juárez Lincoln Martí

Esta conferencia o simposio esta modelada en la exitosa experiencia del CIT, la “Conference on Instructional Technologies” de SUNY (universidad estatal de Nueva York) en la que participe en todas las capacidades, desde ponente, organizador de sesiones hasta en su comite de organizacion.

Objetivo: crear un vinculo entre los profesores que utilizan la tecnologia en sus aulas asi como un incentivo para su continuo uso; y tambien vincular las diferentes instituciones del sistema UV y sus administraciones para fomentar el estimulo, la difusion y el entrenamiento del personal docente general del sistema UV en la infusion de tecnologia educativa.

Organizacion: se crearia un comite de direccion de dicha Conferencia, formado por delegados de (1) la administracion, (2) los especialistas de computo y tecnologia y (3) profesores que utilizan tecnologia educativa en cada uno de los respectivos recintos del sistema UV. Este comite planearia y dirigiria toda la organizacion del evento. A su vez, este comite eligiria un comite central ejecutivo que llevaria a vias de efecto las decisiones tomadas por el comite de direccion.

Implementacion: el comite eligiria una sede para el evento (que deberia ser rotativa para hacer del evento mismo una cuestion del sistema y no de un recinto o campus en particular) y un subcomite integrado por elementos de dicho recinto que se ocuparia de los problemas de infraestructura de la conferencia misma. El comite organizador elaboraria la convocatoria a todos los profesores a presentar en diferentes sesiones sus aplicaciones de la tecnologia en el aula o la investigacion. Se crearia un comite para procesar las propuestas y organizar las sesiones de trabajo y otro comite para preparar las actas de dicho evento en que serian luego publicadas con los resúmenes de los trabajos presentados. La extension, formato y revision de dichos resúmenes se establecerian en dicho subcomite.

Evento: el evento mismo tendria una duracion de dos o tres dias, con algun taller inicial sobre tecnologia en la educacion, seguido de la inauguracion formal, la division en sesiones de trabajo donde los profesores presentarian sus contribuciones y finalmente de una clausura. El recinto que auspicia el evento facilitaria el alojamiento y las comidas a los participantes. Como estimulo a una mayor participacion, aquellos profesores que participaran activamente en dicho evento, bien sirviendo en sus comites gestores asi como presentando trabajo recibirian apoyo completo para su asistencia. Los demas participantes recibirian un apoyo parcial.

El acta con los resúmenes de los trabajos es de gran importancia pues serviria como (1) material para el entrenamiento y conocimiento de tecnicas de tecnologia educativa y (2) promocion de las actividades de la institucion en el area de infusion de tecnologia y pedagogia. Esta acta seria distribuida entre participantes asi como en las bibliotecas de la universidad y entre instituciones nacionales y extranjeras.

El costo, debido a la cooperacion de los miembros de los comites, etc. estaria basicamente integrado por los de la operacion del evento mismo. La efectividad de esta estrategia puede ser medida en el aumento del desarrollo profesional de todos los profesores, asi como en el estimulo de los que ya utilizan tecnologia en las aulas, para obtener una mayor infusion. Ademas, cuéntese el valor anadido al prestigio institucional con un evento en el que tambien pueden invitarse profesores de fuera de la UV. Todos estos logros deberian sobrepasar ampliamente al valor material invertido.

Xalapa, 17 de julio de 2003.