



Research and Graduate School Digest

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FEBRUARY 2020

RESEARCH

Role of Motivation in STEM Research Productivity

by *Luis Cifuentes, Ph.D., Vice President for Research and Dean of Graduate School, NMSU*

In support of LEADS 2025 Goal 2, NMSU is collaborating in an NSF-funded research project, led by **Dr. Robert Stupnisky** from the University of North Dakota, which will investigate the role of motivation in STEM higher education faculty members' research productivity and development. For this study, 10 collaborating USA R2 universities (including NMSU) have agreed to provide access to email addresses of STEM faculty at their institutions. For three years annually (February), faculty will be recruited to participate in a confidential voluntary survey, with the opportunity to win prizes. Survey data will be paired with Web of Science bibliometric data (e.g., publication and citation counts, etc.) and analyzed. Participating faculty and institutions will receive a summary of the results. The study findings are expected to inform higher education institutions, particularly universities striving to increase scholarly productivity, as to specific strengths and deficits in STEM faculty motivation that relate to measurable gains in research productivity.

The plan is to survey the week of February 10th when STEM faculty members will receive an email from Provost Parker and me with a link to the study survey. Thank you in advance for participating in this important survey.



Dr. Robert Stupnisky, Associate Professor of Educational Foundation and Research, University of North Dakota

NMSU Philosophy Professor Co-authors Two Books on Development Ethics

by Hamid M. Rad, Ph.D., Senior Proposal Development Specialist, NMSU

Ethics has been the topic of much debate for centuries. Plato, Aristotle, and Emanuel Kant are among the many philosophers who helped define the principles for moral thought, conduct, and judgment. Owing to their efforts, inquiries into principles of ethics have now evolved and are more cognizant of important attributes needed to create more comprehensive theories of ethics. One area in which ethical theories and practice is discussed is the Development Ethics. Among other considerations, Development Ethicists pay special attention to the justification for moral judgments within development. Development Ethics is the topic of two recent books co-edited by Dr. Lori Keleher, Associate Professor of Philosophy at NMSU: the *Routledge Handbook of Development Ethics* and *Agency and Democracy in Development Ethics*. Fourth generation New Mexican, Dr. Keleher joined NMSU in 2008. She has published a number of articles on development ethics and is the Vice President of the [International Development Ethics Association \(IDEA\)](#). She is also on the Executive Counsel and a Fellow of the [Human Development and Capability Association \(HDCA\)](#).

Q: First, congratulations on your recent publications. Please tell our readers about yourself and the courses you teach at NMSU.

Thank you. I am lucky to be on faculty in the Philosophy Department here at NMSU. It is a small department and there is high demand for our classes. So, my talented and intelligent colleagues and I all get to teach a broad range of courses. I have personally taught 11 different classes ranging from Philosophy 101 to Ethics and Global Poverty, including Feminist Topics in Philosophy, Business Ethics and Ancient Philosophy.

Question: The Routledge Handbook of Development Ethics has received great reviews. Tell us about the book and your contributions to it.

My co-editors and I are very happy to have great reviews on both books. Several leading development economists,



Dr. Lori Keleher, Associate Professor of Philosophy, NMSU

including Nobel laureate Amartya Sen, and noteworthy philosophers, including Richard Bernstein, endorsed *Agency and Democracy in Development Ethics*. Ravi Kanbur, who directed the World Bank's World Development Report for more than two decades, and Javier M. Iguiniz-Echeverria who was the Executive Secretary of the National Peace Accord of Peru, are among those who have endorsed the Routledge Handbook of Development Ethics. I think these endorsements make clear that these texts are not only theoretically insightful, but are also practically valuable.

The Handbook is really the first, and – as far as I know – still the only, book that attempts to map out the field of Development Ethics. My wonderful colleague Jay Drydyk and I brought together almost fifty experts from around the world who contributed to thirty-nine chapters on issues in development ethics, including issues related to Education, Food Production, Sustainability, Security, LGBTQI, Human Rights, Agency, Empowerment, and so many more. As you noted, the result has been celebrated. I have been invited to speak about the book in several places including Argentina, France and Germany. My own solo author chapter in the book introduces Integral Human Development, which is an approach to development rooted in Catholic Social Teaching, but (I argue) has a wide application for development beyond Catholic thought. I also co-author the introduction to the book in which we introduce development ethics and identify seven values and goals of ethical development.

Q: Tell us about *Agency and Democracy in Development Ethics* and the impetus for its publication.

My amazing co-editor Stacy J. Kosko had the idea of putting together a festschrift in honor David A. Crocker, who was both of our advisor in graduate school. Crocker is no ordinary man, and the book is no ordinary festschrift. It brings together work from some of the top philosophers (Martha Nussbaum), economists (Francis Stewart), and policy makers (Javier M. Iguiniz-Echeverria) in the world and significantly advances the discussion on agency and democratic strategy within ethical development work. Crocker's own two chapter contribution advances the concept of agency in a way that anyone who works with or thinks about the Human Development Capability Approach (which provides the philosophical grounding of the United Nation's Human Development Index) will want to read.

Q: On occasion social scientists collaborate with science, technology, engineering, and math (STEM) research scientists to conduct externally funded research. In your opinion, is there a place for a philosopher such as yourself on STEM research? If so, would you please elaborate?

Absolutely. It is perhaps a too well kept secret that philosophers collaborate with STEM scientists, including agriculture science. (Indeed, not all philosophers or scientist know this!)

I personally collaborate regularly with economists and agricultural scientists at the French agriculture research organization CIRAD. Other philosophers collaborate with climate change specialist, medical researchers, technology specialists, and more. But these collaborations are still not as common as they should be.

My chapter in Agency and Democracy in Development Ethics makes the case for why development needs philosophy. The same case applies in many other areas. In much of our work in science, technology, engineering, agriculture, etc., we are making decisions that have meaningful and lasting impacts on the well-being of humans (as well as non-human and the planet). Whether we recognize it or not, these decisions are ethical decisions. Doing ethics is unavoidable. If you choose not to recognize the ethical implications of your work, then you are making an ethical decision to ignore the ethical implications of your work. Given that we are (all) doing ethics, we ought to do it well.

Philosophers who are trained to recognize the ethical dimensions of existing and possible situations and explain why they matter, can make a huge difference not only in what we do, but in how we go about doing it. So, there is absolutely a role for philosophers to collaborate with STEM researchers.

Q: What is your next project?

My current work is on what I am calling Integral Human Development Ethics. My hope is to articulate and develop an approach to development that recognizes, protects and promotes the flourishing of the whole person and every person. This is a bit radical because most approaches to development are concerned exclusively with the material well-being of the poor. On my view, relationships of solidarity

play a key role in flourishing of person as a whole person, such that flourishing of every person – rich and poor alike – requires solidarity among all people.

Dr. Keleher can be reached at lkeleher@nmsu.edu.

Illness in the News Provides Reminders about Infection Control

by JoAnne Dupre, Ph.D., Biosafety and Export Control Manager, NMSU

News stories about the spread of virus and illnesses can be a good time to remind students and personnel about practices to prevent infectious disease. For those who conduct research activities in biological laboratories, and for everyone to minimize the spread of communicable illnesses in daily activities, biosafety guidelines provide effective ways to stay healthy.

- Wash hands frequently. Establish good habits of handwashing after touching your nose and mouth, before leaving a laboratory where biological materials are handled, and before preparing food for yourself and others.
- Follow proper hand washing practices: use soap and running water to vigorously rub your hands and wrists for at least 20 seconds. If using hand sanitizer, apply enough to keep your hands wet for at least 20 seconds.
- Do not bring food, drinks or personal items like car keys, cell phones and electronic devices into the laboratory work area. These items are difficult to clean effectively before removing from the lab. Use dedicated pens, notebooks, and lab-use-only marked items to avoid carrying these objects from the laboratory containment zone into public spaces or to your home.
- Recognize the routes of exposure for infectious disease: ingestion, inoculation, direct contact with mucous membranes, or inhalation of infectious aerosols. Handwashing and correct use of protective equipment can interrupt the route of exposure and stop the transmission of pathogens. Remember to keep contaminants away from your nose, mouth and eyes by using safety glasses and face shields, and do not apply lip balm or eye drops in the laboratory.
- Dispose of waste in accordance with federal, state, and local requirements. If materials have been mixed, follow the cleanup and disposal protocol for the most hazardous component. Review chemical



Dr. JoAnne Dupre, Biosafety and Export Control Manager, NMSU



Safety Data Sheets to determine the appropriate use and disposal instructions, and contact safety specialists whenever you need additional instructions.

- Train lab occupants to recognize hazards and exposures through initial training and refresher sessions at Environmental Health, Safety and Risk Management (EHS&RM, safety.nmsu.edu).
- Provide periodic reminders at lab meetings and by posting signage for hazard communication.
- Online safety training modules are available to all NMSU researchers, students, and employees through EHS&RM for selected topics, and through the CITI Program website at www.citiprogram.org for additional research-specific subjects.

For more information about infection control measures, and the role of the Institutional Biosafety Committee (IBC) for reviewing research with infectious materials or recombinant nucleic acid molecules in NMSU laboratories, contact Research Administration by email to biosafe@nmsu.edu.

New Mexico EPSCoR SMART Grid Center Call for Proposals

The New Mexico EPSCoR seeks proposals, by March 20, 2020, in response to the Infrastructure Seed Award program announcement meant to “support transformative research and capacity building in emerging areas related to the NM SMART Grid Center scope of work.” The award provides up to \$50,000 for 12-month projects starting June 1, 2020. Applicants must be faculty from research universities or undergraduate colleges in New Mexico, who don’t already have New Mexico EPSCoR seed awards. To learn more about New Mexico EPSCoR Infrastructure Seed Award visit <https://www.nmepscor.org/infrastructure-seed-award>. To download the program's call for proposals click [here](#).



Request A Workshop!

Research Administration Services (RAS) offers periodic workshops on proposal writing and developing proposal budgets. We have recently been asked to hold additional workshops for various purposes, including finding funding opportunities for graduate students. In order to streamline such requests, we have developed a Request a Workshop



form accessible at <https://ras.nmsu.edu/request-a-workshop>. The form is also available on the [RAS website](#), under Proposal Development tab. Those interested in requesting such workshops could use the form to provide us with information about their needs. For more information please send email to ras@nmsu.edu.

Ms. Cindy Ramirez, Proposal Development Specialist, Research Administration Services, NMSU

Save the Date: Research Administrators Roundtable – March 13, 2020

The Offices of Research Administration Services and Research Integrity and Compliance will hold their quarterly roundtable discussion for pre-award research administrators and other support staff from throughout the NMSU system on March 13, 2020 at 10:00am in Anderson Hall. Regular communication and collaboration are the primary goals for these roundtables, as we collectively embark on the mission of NMSU LEADS 2025.



Save the Date: Principal Investigator Training – March 20, 2020

Research Administration Services will be offering its biannual Principal Investigator Training on March 20, 2020 at 10:00 am in Anderson Hall. The training is intended to provide a high-level overview to NMSU researchers and staff involved with proposal preparation and submission, as well as award negotiation/acceptance of externally-sponsored grants and contracts. Registration details will be announced soon.



NMSU's Postdoctoral Association

The Office of the VP for Research is considering to initiate an NMSU Postdoctoral Association (NMSUPA), dedicated to addressing the needs and concerns of all NMSU postdoctoral scholars. The mission of NMSUPA is to work with the university administration to enrich the lives of postdoctoral scholars and to provide them with resources, professional development and networking opportunities, and raise awareness about their concerns. We ask that all postdoctoral scholars at NMSU to take a few minutes of their time and complete and submit [this survey](#) to help us with moving forward with creating this valuable association.

NMSUPA
Postdoctoral Scholar Association

Limited Submission Funding Opportunities

The Office of Research Administration Services lists limited submission funding opportunities at <https://limitedsubmission.nmsu.edu>. We encourage NMSU faculty and staff to periodically visit the site and if they are interested in any of the opportunities to please inform us by sending email to ls-ras@nmsu.edu. As a reminder, the site is only accessible on campus. Accessing the site using off-campus computers require first downloading and logging in through NMSU's VPN at <https://vpn.nmsu.edu>.



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GRADUATE SCHOOL

Cognitive Descriptive Reframes

By Luis Vázquez, PhD, Associate VP for Research and Graduate Studies

Achievement Gap, At-Risk, and Underrepresented, I have heard these terms more often at the beginning of this semester, than I have heard them in past semesters describing graduate students. I usually hear these descriptive words used by faculty and staff for undergraduate students. I began to think what these words actually imply; biases, stereotypes, distancing, access, and inclusion in our educational opportunities on campus? I searched the literature to gather information on what was written about these terms. I realized that these terms were more person centered versus system centered as to how we perceived some of our graduate students at NMSU.

The Educational Advisory Board (EAB) reported that “achievement gap” implies that the onus for the outcome disparity is on the student. The implication is, what did the student do wrong? In meeting with several advisors with graduate students on probation, it came to light that some students needed a better review of their credentials. Even though they had “As” in prerequisite courses from other universities, content and rigor were not met to the expectations for NMSU. Student’s fault? Maybe the student was truly in need of an onboarding process, an independent development plan (IDP) with focused mentoring to understand the graduate school experience.

A more appropriate collective sense of responsibility and accountability term would be “equity gap,” which implies that there are disparities that systemically have not been addressed or accounted for with our graduate students that come from non-traditional, first generation, and various higher education institutions with differing requirements. This pro-active preventive perceptible refrain becomes an approach of empowerment versus a crisis reactive approach to resolving issues.

The words “At-Risk” has also become a common descriptor that implies we are taking a chance on the student, that we are not sure of the prospect of a student. I thought about the impact of such a term and asked colleagues about their perceptions of this term. They often reported descriptions such as taking a chance, not sure, not as competent, several deficiencies, and labor intensive. I asked several what their thoughts were when using the terms such as at-potential or at-promise. In contrast, they often gave lists of what they deemed to be positive about the student. Such words included



Dr. Luis Vázquez, Associate VP for Research and Graduate Studies

motivated, resilient, and bright.

"Underrepresented" student populations is another term often connected with NMSU students. Here, discussions often refer to the demographics of the student population on the campus. Then the discussion continues to evolve into which other underrepresented student populations are not represented at the institution. The interesting thing about this discussion is that its focus is often on the number of underrepresented students and the demographics of these students, along with increasing the number of the other underrepresented students. When the term underserved student populations is interjected into the discussion, issues of support, mentoring, advising, access to services, challenges to time to graduation, sense of belonging and culturally sensitive services are shared within the discussion.

Changes of terms used to describe graduate students can dramatically shift how we perceived them. Food for thought at NMSU.

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Questions and comments regarding NMSU's Research and Graduate School Digest should be directed to Hamid M. Rad at hamid@nmsu.edu, (575) 646-6429.