CETYS
UNIVERSIDAD ®

Research at CETYS University

2008-2011

Report for the CETYS-WASC Committee

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Index

Foundation

Justification

A few months ago, at the request of the WASC Accreditation Coordinating Committee, a small group of academics: Jose Luis Bonilla, Melanie Montes, Teresita Higashi and Alberto Gárate, were organized to establish a strategy to retrieve and evaluate research works that have been done at CETYS in the last few years. After many conversations, it was agreed upon that the work would be focused on evidence of research and not towards what CETYS designs and implements to promote a culture of research in its undergraduate and graduate programs. Albeit these are complementary and equally important points, the team decided to respond to these questions: Are research works being done at CETYS? Primarily, who is involved in these research works? Work was done during the first semester of 2011, and this report describes the end results as well as the procedures that were followed.

So the reader has a more precise ideas of the objectives of this work, the following aspects are emphasized:

- The research documents that were gathered cover a period of three years (2008, 2009, 2010). The reasons for this are detailed in the report.

- The research products were sought in the following levels: undergraduate students; graduate students; faculty who have made studies in the centers that CETYS has; faculty who developed research works as a part of their work plans and profiles.

- In part, this inquiry is in response to a WASC major recommendation made after the Capacity visit of autumn 2009, which states: The institution must develop a culture of research at the graduate level as well as the involvement of faculty in research processes that derive from the academic program curriculum.

Objective of the report

I this report regarding research at the undergraduate and graduate levels at CETYS, a strategy is implemented for the gathering, application of qualitative criteria (scale range), selection and electronic integration of various research documents, with the objective being to provide evidence to respond to the major recommendation regarding research culture at CETYS, especially with regards to research products and not in relation to specific processes or programs that promote this competency.

Considerations

Regarding research at CETYS, the authors state that, even though the institution has a professionalizing focus and directs most of its efforts to teaching, and even though it does not have an ample research scope, the formative processes of the institution consider the promotion of a culture of research that has generated as a result the creation of quality research work.

Criteria

A strategy is established for identifying, gathering, grouping and evaluation of research reports that have been produced at CETYS, under the following criteria:

a) A period of three years is considered: 2008-2010. A range of works in this period of time is a sufficient representation of the increase in research processes at CETYS that arise due to various circumstances, among these the increase in faculty members with graduate degrees and the expectations generated by the Institutional Research Plan of 2006-2007. Research works from some research centers (such as the Humanism and Education Research Center) were left aside due to the fact that these do not yet have available results.

b) A group of research works are those done by undergraduate and graduate students, in courses such as Research Methodology, also as thesis, studies done for presentation in seminars and forums, among others

c) Another group of research works are those done by faculty members independently or as a part of an existing research center, some of which have obtained important awards at a national level.

d) The inventory does not consider institutional research, meaning, those studies CETYS does to measure user satisfaction, evaluate planning efforts, analyze academic offering and market characteristics, among others.

e) The report considers a specific section for projects approved and financed by CONACYT (National Council for Science and Technology in México). The majority of these works have been done by the College of Engineering with a methodology that is ad-hoc to applied research projects. The group that prepared this report had access to some of these titles but not the evidence with regards to the methodological models that were used (in most cases due to intellectual property restrictions), and this is why these works are considered apart from the ones in which the scale range was applied.

Strategy

1. Initially the team elaborated a scale range to apply to various researches with the objective being to determine the level of quality of the works and this was presented to the CETYS-WASC Committee for approval. After some observation, some criteria were modified and the final product was a checklist that does not provide enough elements to evaluate the quality of the works, but does determine if the research comply or not with the basic elements of a study, regardless of the academic level of the author(s)

2. The College Deans were informed via the CETYS-WASC Committee meetings of the intention of this strategy. This was a key activity because through them the team had access to faculty and students.

3. Via the Colleges, an inquiry and gathering of research works was made in the four levels that were previously described (undergraduate students, graduate students, faculty from a research center, faculty who did independent research). Faculty in charge of accreditation for an academic program became key information providers.

4. The research reports were sent in electronic formats to Jose Luis Bonilla and Melanie Montes, who evaluated these according to the previously defined checklist which was approved by the CETYS-WASC Committee. It is important to note that the research documents had various characteristics and formats, and they were delivered in versions that were available: PDFs, PowerPoint presentations, works with feedback mark-ups for students, etc.

4. All works were placed in a repository, according to the following characteristics:

- Backboard was selected as the technological platform, and only authorized personnel had access to the material.

- The button marked as "Report summary" contains a brief quantitative description of the research works, in Excel format. A title is included for each work, year the work was done, name of the person who sent it, category, number of compliance indicators and the detail of where it was published, when this applies.

- The button marked "Repository" presents the checklist used for each of the works, as well as the folders in which the works were organized, including the number of compliance criteria as well as the person who delivered them. The arrangement of the works based on these two elements holds a direct relationship with the organization table referred to previously, which serves as an index for the repository.

Results

After many weeks of gathering research works from all four levels, the team had a total of 102 works. Some graphs are presented to show tendencies with regards to the characteristics of the studies found in the repository.
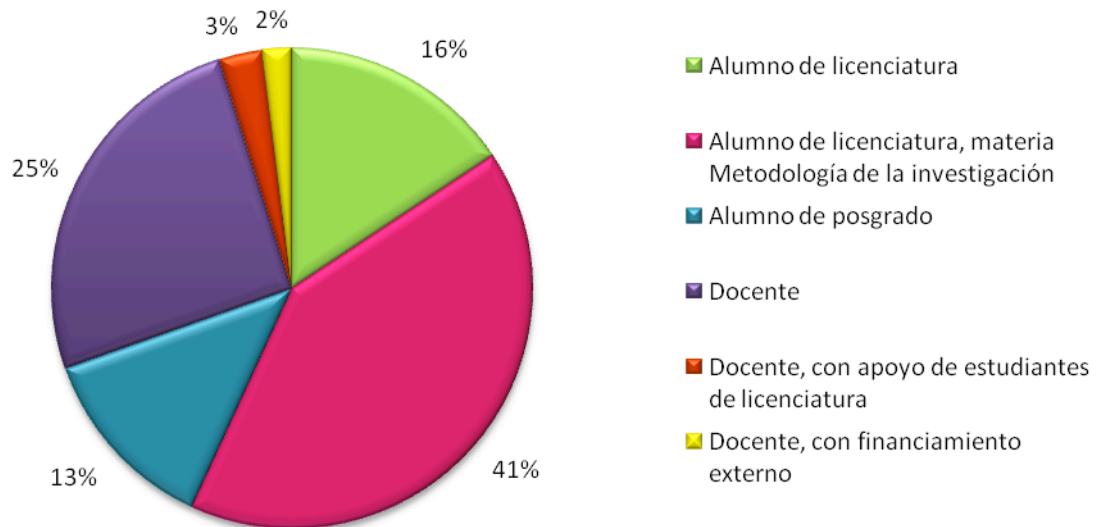
Graphs and description of data

Year in which works were done.
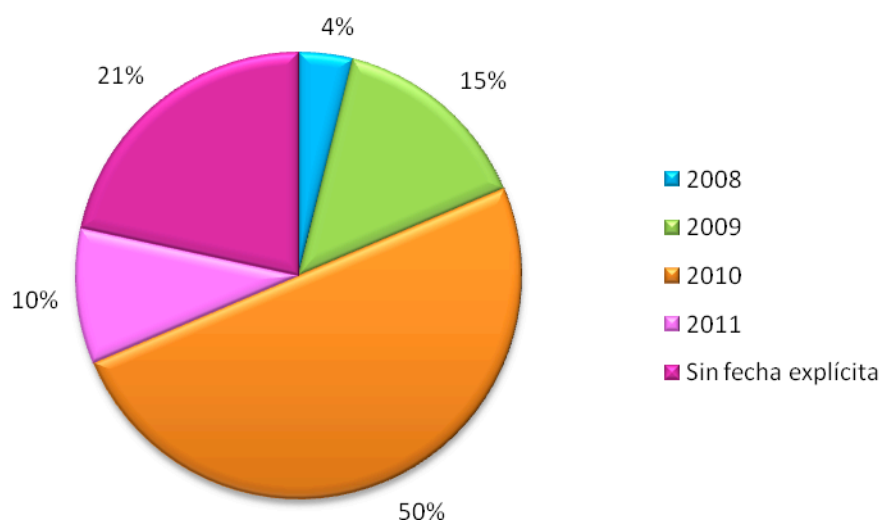
We observe a high percentage of works done in 2010 (1 of each 2). It is hard to sustain that activity increased in the institution. Perhaps the explanation resides in the fact that it was easier for faculty to locate research in recent archives.

Categories.

The graph is very illustrative: in this period, 2 of each 5 studies belong to undergraduate students that must do research work relating to the learning outcome of some course. However, it is inspiring to note that 1 of each 4 works is from faculty. It is important to note that the institution must improve the categories of: faculty with financing and faculty with student collaboration.

Colleges.

10%

46%

44%

■ Administración y negocios

■ Ciencias Sociales y
   Humanidades

■ Ingeniería
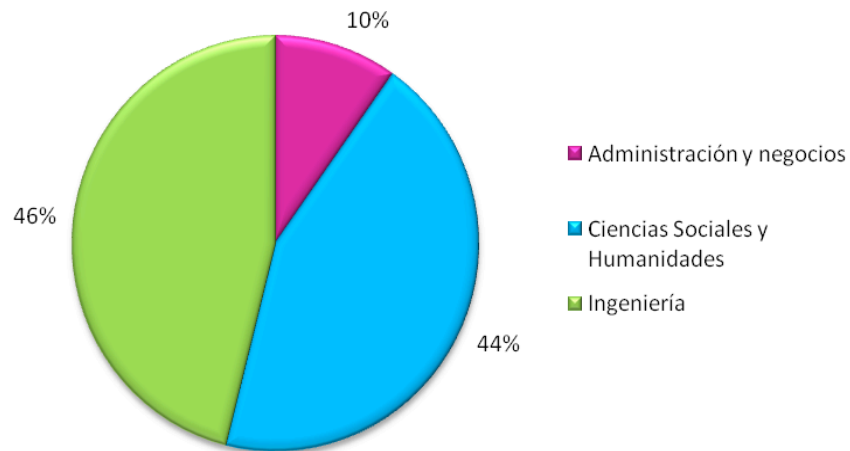
The graph shows an balance in participation from the Colleges of Engineering and Social Sciences & Humanities. In the analysis, we identify that the majority of works from undergraduate students have to do with the first and the works by graduate students and research by faculty correspond to the second.

Number of criteria that the research documents meet according to the criteria established by the checklist.

2% 3% 2%
         4%

17%

72%

■ Dos

■ Tres

■ Cuatro

■ Cinco

■ Seis

■ Siete
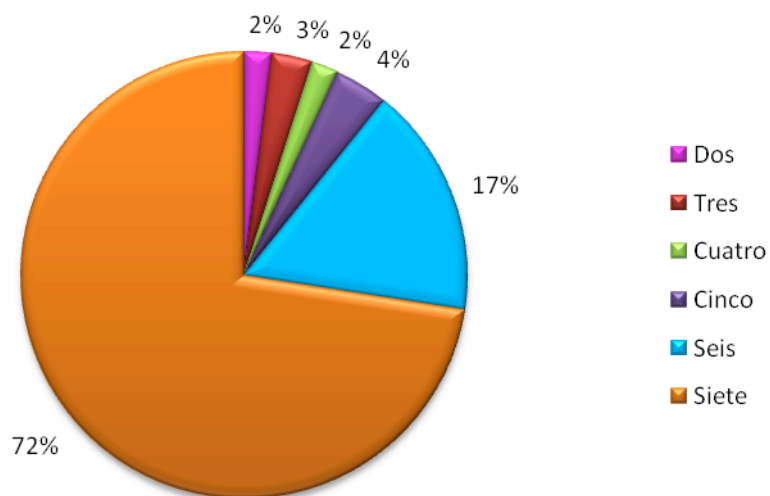
The checklist does not determine the quality of the research but does identify the presence of basic elements of a research work. As can be seen, 3 of each 4 comply with the seven points.

Relationship between works and evidence of publishing.

A quality criteria not developed in this study is the destination of the research works done in the institution. The final objective of all studies is that the knowledge be shared through various mechanisms of publication. A way of identifying a tendency and according to data gathered in this inquiry, we established that just handful of faculty members have achieved the publication of their works via books and articles, among other media.

Author	# of works with evidence of publication	Where they have been published[1]
Isaac Azuz	11	• Book published by university publishers and with approval of CONACYT • Arbitrated academic journals • National and international Conferences
José Luis Bonilla y Melanie Montes	6	• National FIMPES award • National and international Conferences
Patricia Valdés	4	• Arbitrated academic journal • National FIMPES award • International Conference
Guadalupe Sánchez y María Eugenia Corella	2	• Arbitrated academic journal • International Conference
Adriana López y Karla Morales	1	• National FIMPES award
Miguel Guzmán y Rodrigo Matus	1	• National FIMPES award
Miguel Guzmán	1	• National Conference

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[1] In the repository data base it is specified in which conference or journal the work was publlished.

Conclusions

A total of 102 research works were gathered for the three year period at the undergraduate and graduate levels. These provide ideas and tendencies with regards to research activity at CETYS, which leads us to the following main conclusions:

a) Research is done at CETYS. To date however, not enough and without the amount of diversity that is required.

b) There are faculty members who do research and publish, but through a personal directive rather than through research plans and programs promoted by the colleges.

c) The editorial program at CETYS does not have a clear linkage to research projects because, regardless of the quality of various works, these have not been published.

d) There are no networks or lines of research, which also makes more difficult the development of high impact research.

e) Linkage between faculty and students for the design of research projects is scarce and without a doubt an important area of opportunity.

f) As a conjecture that is beyond this work, it is expected that the culture of research will be emphasized with the deployment of the CETYS 2020 Vision, particularly via the Centers of Excellence and the research lines derived from them.

Appendix

Scale range used to evaluate research documents

Criteria	Excellent	Good	Regular	DeffICIENT	Lacking	N/A
Introduction • Topic • Structure						
Problem definition • Objective or questions • Justification						
Theoretical Reference Frame • Description of theoretical basis for the research						
Methodology • Description of methodology (focus, method, technique) • Presentation of instruments or procedures (including application process)						
Results • Presentation of data (tables, graphs, etc.)						
Discussion or conclusions • Discussion of results referring to research questions and theoretical reference frame • Closure of work that shows achievements and learning, as well as new research questions.						
Guidelines (APA, IEEE, MLA or other) • Author data • References and paraphrasing • Page references • Other guidelines (summary, page numbers, line spacing, margins, etc.)						
Academic Writing • Fluid writing (concordance, coherence, cohesion, argumentation) • Correct grammar						