## Palomar College – Institutional Review and Planning Instructional Programs

## Purpose of Institutional Review and Planning:

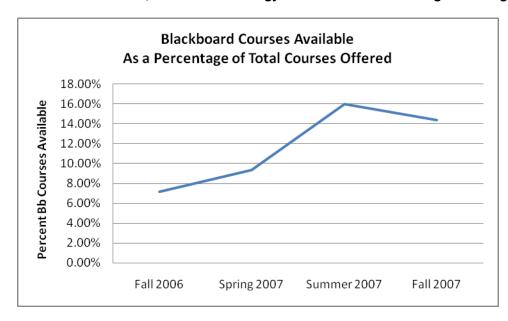
The institution assesses progress toward achieving stated goals and makes decisions regarding the improvement of institutional effectiveness in an on-going and systematic cycle of evaluation, integrated planning, resource allocation, implementation, and re-evaluation. Evaluation is based on analyses of both quantitative and qualitative data (ACCJC/WASC, Standard I, B.3.)

## **Department: Academic Technology Resource Center**

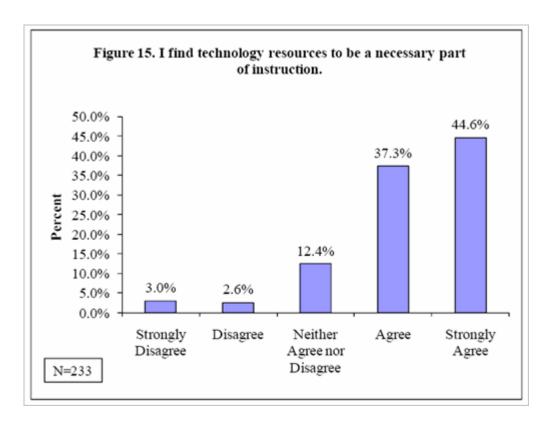
**Non-Instructional Program Reviewed** 

2007-08

1. <u>Blackboard and the General Support of Academic Technology</u>. The Blackboard system has enjoyed 99.7% up time over the past year. The only down time has been attributable to power outages and, on one occasion, a corrupt log file on a single front-end application server. The Blackboard system as a whole has 72,950 users in its database, up 4.2% over the last evaluation period, but this is really just an indication of incidental college growth. There are 11,139 course shells in the Blackboard database, up 59% over the last institutional review report. A more significant metric is the number of Blackboard course shells that have been made available for teaching. Over the last year we have seen an increase of 103% in the adoption of Blackboard as a teaching tool, based on the number of Blackboard course shells made available by instructors. In Fall of 2006 215 course shells were made available, in Fall 2007 436 were available. This means that we have been effective in promoting and training in the use of technology enhanced education, and that technology mediated instruction in general is gaining broader acceptance.



This is supported by the results of the recent "Accreditation Employee Survey 2008" (2/08) conducted by the office of Institutional Research and Planning, where 81.9% of respondants agreed or strongly agreed (44.6%) that "technology resources are a necessary part of instruction."



Support Incidents. Our support technicians and help desk technicians in our computer labs field thousands of basic technology questions. So many that we do not attempt to count them. We do count "tier 2" and "tier 3" support incidents, however, that require more work to answer. A tier 2 incident is one that gets recorded in our automatic help ticketing system, which involves multiple correspondences with a faculty member or student requesting technical support. We have handed 406 such incidents in the last year. Tier 3 incidents are those that require our systems administrators to contact the Blackboard corporation when they discover system bugs and seek programmatic solutions. We have had 22 tier 3 incidents in the last year. A tier 3 incident requires a great deal more time of analysis and correspondence than does a tier 2 incident.

<u>Training</u>. Academic Technology delivers in-person and online self-paced training. We deliver approximately 30 in-person workshops per semester, though the number varies depending on the topics being addressed. 62.5% of employees report attending an Academic Technology workshop:

Table 14. Type of Training Attended						
N	Percent					
277	69.8%					
231	58.2%					
68	17.1%					
248	62.5%					
97	24.4%					
62	15.6%					
	277 231 68 248 97					

In addition to these traditional methods of delivery, ATRC has, for the last two years, delivered a weekly podcast, a weekly newsletter, an intermittent vodcast, and maintained various blogs and RSS feeds all with the aim of presenting training materials and promoting the use of technology on campus.

<u>Web Servers and Contents</u>. The department continues to administer the District's academic and administrative web servers and web sites. These sites contain hundreds of thousands of individual web pages and other documents. ATRC is responsible for assisting with the creation and loading of these data, and physical maintenance of the servers on which they are served up for consumption.

Streaming media. ATRC encodes and uploads audio and video files for instructional use to streaming media servers which we administer and maintain. The chore of processing these files continues to grow each semester. Thus far we have encoded and created links for 5,811 video files (WMV) and 1,233 audio files (WMA). We have discontinued use of the Real video and audio formats, which has reduced the workload in this area.

Computer labs. We now administer 178 public access computers, including a 30-computer mobile, wireless lab and 4 specialized ADA public access computers. The total number of public access computers is up 38% from 2005. We also maintain a 5-computer faculty technology center, which provides specialized training to faculty members. General student lab attendance is consistenly high, with lines forming occasionally at peak times. We have successfully implemented our own pay-for-print system in the last year which pays for the cost of print supplies and the purchase of new printers.

<u>Satisfaction Levels</u>. In the department's role in technology support 75.1% responded that they were satisfied with academic technology support at Palomar. Here are the data from the report cited above:

Table 15. Satisfaction with Technology Services						
		Strongly		Neither Agree nor		Strongly
	N	Disagree	Disagree	Disagree	Agree	Agree
I am satisfied with the academic technology available at Palomar.	465	2.2%	9.9%	16.6%	54.8%	16.6%
I am satisfied with the academic technology support at Palomar.	461	3.3%	5.6%	16.1%	54.9%	20.2%

## 2. Reflect upon and analyze the above 3-year trend data. Briefly discuss overall observations and any areas of concern or noteworthy trends.

The adoption of Blackboard as a means of instructional delivery is vigorous and growing. We expect to enhance its value over the next year by adding technology and library help modules in each Blackboard class. To take full advantage of what technology might do at Palomar and we need to purchase the full Blackboard Academic Suite, including the Community System and the Content Management System. We believe this acquisition would enhance productivity, make additional teaching/learning capabilities available, and provide powerful technical capabilities to the entire college community.

Our web servers and services suffer from a chaotic mix of hundreds of thousands of pages. We strongly recommend acquisition of a web content management system to provide a uniform look to Palomar resources, to add approval levels, and to control management of web content by approved authors. We also recommend acquisition of a search appliance that will make finding data on our very broad Internet and intranet systems easy.

With the increased importance of technology enhanced education, we recommend not only expanding the Blackboard system, but adding web 2.0 addins to it such as Learning Objects, and other technology tools.

There is a need for more public access computers, but we expect to fulfill that need when the new library is built.

To service the demand for increased use of streaming media we have added a new front end video server, and will be adding a third before the end of this academic year. We recommend the addition of a Flash video server in the near future. Two concerns we have with the tremendous growth in the use of streaming media is the amount of bandwidth the college provides, and the amount of central disk storage provided for media files. Both need to be increased and grown with an eye to future expansion.

3. Reflecting on the 3-year trend data, describe/discuss discipline planning related to the following:

PLAN – 2007-08 Progress – 2008-09

a. Curriculum, programs, certificates and degrees (consider changes due to CSU/UC transfer language updates, articulation, workforce and labor market projections, certificate or degree completions, etc.)

b. Class scheduling (consider enrollment trends, growth, course rotation, comprehensiveness, etc.)

4. Discuss/identify the resources necessary to successfully implement the planning described:

PLAN – 2007-08 Progress – 2008-09				
	Equipment/Technology – block grant funds, VTEA, other resources,	We recommend the following purchases from Block Grant or other funds		
	etc.	in the coming year:		
		License for the Blackboard Content Management System		
		License for the Blackboard Community System		
		License for Learning Objects Campus Pack		
		License for Flash video server software		
		A physical Flash video server		
		License for a web content management system.		
		License for RightNow technologies for web support interface.		
		An additional video capture workstation for ATRC		
		The addition of document cameras in ATRC computer labs.		
b.	Budget – budget development process, one-time funds, grants, etc.			
	,			
	- 111			
C.	Facilities – schedule maintenance needs, additional classrooms/labs	As always we wish for a continuing budget to replace out-of-warranty		
	due to growth, remodeling, etc.	computer lab equipment and staff equipment.		
d.	Faculty position(s) – faculty priority process and projected full-time			
	needs for 1 – 3 years			
	•			
e.	Staff position(s) – changes in instructional or support needs due to	We need to create and fill the following positions:		
	program growth, new technology, etc.	1 web master		
		1 web motion graphics expert		
		1 trainer		
f.	Other			

5. Discuss one discipline goal linked to Palomar's Strategic Plan 2009 and how it will support the success of students.

Our goal is to add help modules to the Blackboard system to enhance the use of technology resources, including library resources, in education. These help modules will serve to explain to students and faculty how to better utilize technology resources available to them.

- 6. Student Learning Outcome progress:
  - a. Describe a learning outcome at the course or program level and the assessment used to measure student learning of that outcome.
  - b. Discuss a learning outcome that is observable yet difficult to measure.
- 7. Describe a discipline accomplishment that you want to share with the college community.

We are a support, not a discipline organization, and many of the requirements of this form are not appropriate for us, but in terms of accomplishments we might mention the following.

- 1. Upgraded Blackboard basic edition to the enterprise Blackboard Learning System, and have successfully managed 3-major version upgrades over the past 3 years. The upgrade to version 8 is scheduled for June, 2008.
- 2. Set up and maintain a complex Blackboard hardware platform on which to run the new Blackboard Learning System. The new platform has 3 web servers, a conference server, a database server, and a file server, all connected via a load balancer.
- 3. Applied continuous upgrades and research and install building blocks to the Blackboard system.
- 4. Fully integrated the Blackboard system with the PeopleSoft student information system, so that PeopleSoft class rosters, class identities, and faculty assignments are all in sync with the data in Blackboard. We have consistently rebuilt and redeployed integration reports as the PeopleSoft system has consistently failed.
- 5. Managed and maintained the PeopleSoft/Blackboard snapshot integrator.
- 6. Fully integrated user authentication between the Blackboard system and the campus Active Directory system via LDAP. Students now have a single login identity for eServices and Blackboard.
- 7. Developed and deployed a new Blackboard test environment segregated from the production environment.
- 8. Developed and deployed a Blackboard sandbox environment where faculty users can have hands-on exposure to the features of the next version of Blackboard to be deployed.
- 9. Responded to thousands of technical support requests from students and faculty regarding Blackboard login and content issues.
- 10. Developed significant Blackboard user training materials delivered via Internet.
- 11. Migrated all Palomar web content to the new server structure.
- 12. Responded to thousands of technical support requests related to web authoring, graphics creation, document scanning, web connectivity, and other related questions.
- 13. Designed and implemented a new streaming media server environment with multiple front-ends connected to a common SANS back end.
- 14. Created templates and other web graphics for expansion of the new web design.
- 15. Modified the scripts we originally created to display news, events, class ads and dynamic graphics to accommodate the new design.
- 16. Expanded our computer labs.
- 17. Provided ongoing help to students using our labs by answering thousands of technical questions.
- 18. Continue to schedule for faculty benefit the two computer classrooms and the faculty technology lab.
- 19. Managed, maintained and delivered for use a 30-computer mobile, wireless lab.
- 20. Manage a faculty technology center in room LL-111 with 4 specialized computers.
- 21. Installed a new pay-for-print system in the library which has made student printing a self-sustaining activity.

- 22. Answered many questions on the use of wireless computing in the library and on campus in general.
- 23. Continue to author and maintain web sites for Academic Technology ( <a href="http://www.palomar.edu/atrc">http://www.palomar.edu/atrc</a>), integrating the old lab web site into the new one. Created web sites for learning about and scheduling the mobile labs.
- 24. Expanded training materials available on the ATRC web site.
- 25. Continued to deliver podcasts containing training materials to faculty members and staff.
- 26. Promoted the use of new software and technologies through our web sites and other training materials.
- 27. Expanded our faculty/staff training options, training in the uses of Blackboard, Office productivity software, Web authoring, Document production, streaming media, multimedia production, web technologies, graphics production and editing, and best pedagogical practices.
- 28. Initiated and emphasized Blackboard training in an effort to produce better trained faculty Blackboard users.
- 29. Conducted numerous one-on-one training/mentoring sessions in the topics we train on (see #27 above).
- 30. Continued to maintain the ActivePDF server so that faculty can submit documents to the server and receive them back via email as PDF documents (http://www.palomar.edu/pcpdf).
- 31. Have migrated users from the old webboard system to new Blackboard or SharePoint systems.
- 32. Conducted regularly scheduled meetings with the IS department to improve coordination of technology support at the college.
- 33. Digitized, encoded and linked hundreds of educational videos.
- 34. Completed the project of digitizing/encoding all ETV offerings.
- 35. Initiated with PCTV a new effort to produce targeted video on demand and digitize/encode/link it for faculty and staff.
- 36. Upgraded the college's Windows media server to Server 2003 platform and added disk storage capacity to it.
- 37. Decommissioned the old Real media.
- 38. Ordered Respondus and Studymate for faculty use in the coming year.
- 39. Expanded the hours of operation of our labs beyond the hours the library is open.
- 40. Continued to support wireless computing at Palomar through our web-based help forum.
- 41. Created numerous web advertisements for upcoming classes and events at Palomar college.
- 42. Continued to administer and support the encoder and media server that streams the KKSM broadcast live on the Internet.
- 43. Continued to administer and support the encoder and media server that streams the weekly Concert Hour worldwide.
- 44. Continue to support completion of a new DRC web video captioning project.
- 45. Have installed and administer the TurnItln anti-plagiarism service through the Blackboard system.
- 46. Have added and administer the Oscelot podcaster through the Blackboard system.
- 47. Have distributed over 50 digital audio recorders to faculty members for purposes of recording audio messages and lectures to their students online.
- 48. Have built, maintain and deliver instructional material on copyright law and the TEACH Act to Palomar faculty through a web site and a self-paced online course, fulfilling our legal obligation under the terms of the US copyright law.
- 49. Have purchased and implemented a new helpdesk automated system for tracking student and faculty tier 2 help requests.
- 50. Promoted the programs of the California Educational Technology Collaborative (see <a href="http://www.palomar.edu/atrc/cetc.htm">http://www.palomar.edu/atrc/cetc.htm</a>).

8.	Are there other resources (including data) that you need to complete your discipline review and planning?

9.	For programs with an external accreditation, indicate the date of the last accreditation visit the recommendations.	and discuss recommendati	ons and progress made on
10. 0	Other comments, recommendations:		
Plea	se identify faculty and staff who participated in the development of the reviewer's planning:		
		_	
		_	
Dep	artment Chair/Designee Discipline Review and Signature	Date	
Divi	sion Dean Review and Signature	Date	

<sup>\*</sup> By no later than <u>2/14/08</u>, forward a hard copy to Instructional Services for review by IPC.

<sup>\*</sup> Also, by no later than <u>2/14/08</u>, forward an electronic copy to Institutional Research and Planning.