2010 FACULTY TECHNOLOGY SURVEY REPORT

(Second Draft)

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This survey was an important undertaking and represents the first step in developing a technology training agenda for NPC faculty members in 2011. Creating the instrument, administering the survey and analyzing the results required the dedication of many individuals. Taking the survey required a time commitment from all who responded. We gratefully acknowledge the efforts of all who volunteered their time and effort and wish to thank all who completed the survey and who provided many valuable comments and insights.

INTRODUCTION

This report contains the results and analysis of a survey by the Faculty in Educational Technology and the Information Services (IS) regarding NPC faculty's perspective on the College's technology implementation and training.

The survey was announced to all full-time and adjunct faculty members in November of 2010. 56 individuals from NPC's all three academic divisions responded, spending about 20 minutes of their time to answer the survey. Their self-assessment of technology literacy and their perceptions of the technology use and training form the core of the report.

Purpose

The purpose of the 2010 Faculty Technology Survey was to capture insight from the NPC community on the implementation and training of learning technologies on campus. The information, serving as an initial needs assessment, will be used by the Faculty in Educational Technology and the IS to develop future technology implementation and training strategies.

Methodology

A total of 26 questions, in forms of multiple choice, check box, rating, and short answer, were created to collect the following data: faculty's demographic information, technology proficiency, use of technology, training preferences, and other related expectations and concerns.

The survey was delivered online via the HEAT Survey module, an integrated feature of the College's helpdesk system. This survey engine provided the basics of question and answer data collection, using a MySQL database to store and process the data. However, it does not automatically facilitate descriptive analysis and graphical reporting. The IS data analyst had to write a query to retrieve the data from the server and compile the data on an Excel spreadsheet for further analysis.

Accuracy

Neither the survey itself nor this report pretends to be an exhaustive or completely accurate analysis of the faculty's perspective on NPC's technology implementation and training needs. A great deal of effort on the part of many individuals went into the creation, collection and analysis of these results. The survey instrumentation, the sample size, a response rate of 29%, and the data collection and analysis procedure appeared to be sufficient to support the reliability and validity of the survey and its intended purpose. Even so, the

investigators make no claim on the accuracy of the results or how the results are interpreted by the wider educational technology community because of inherent flaws such as the survey software's inability to automate the descriptive analysis, missing of part of the qualitative data, and limited control of responders, etc.

SURVEY RESULTS

(n=56)

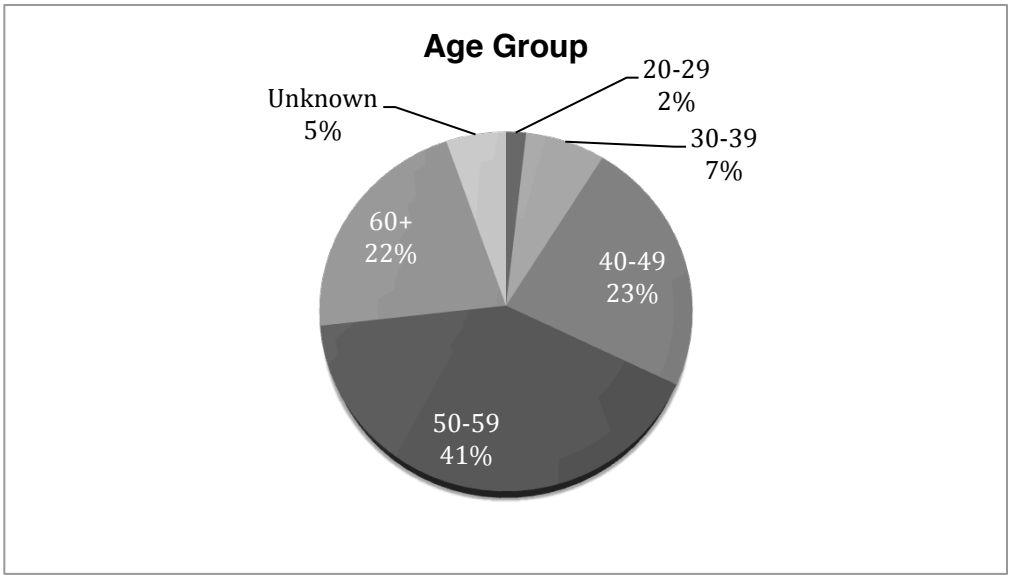
I. Responses to Demographic Questions (Questions 1-7)

Q1. Gender

a. Female: 29 (52%)
b. Male: 23 (41%)
c. Unknown: 4 (7%)

Q2. Age

a. 20-29: 1 (2%)
b. 30-39: 4 (7%)
c. 40-49: 13 (23%)
d. 50-59: 23 (41%)
e. 60+: 12 (21%)
f. Unknown: 3 (5%)

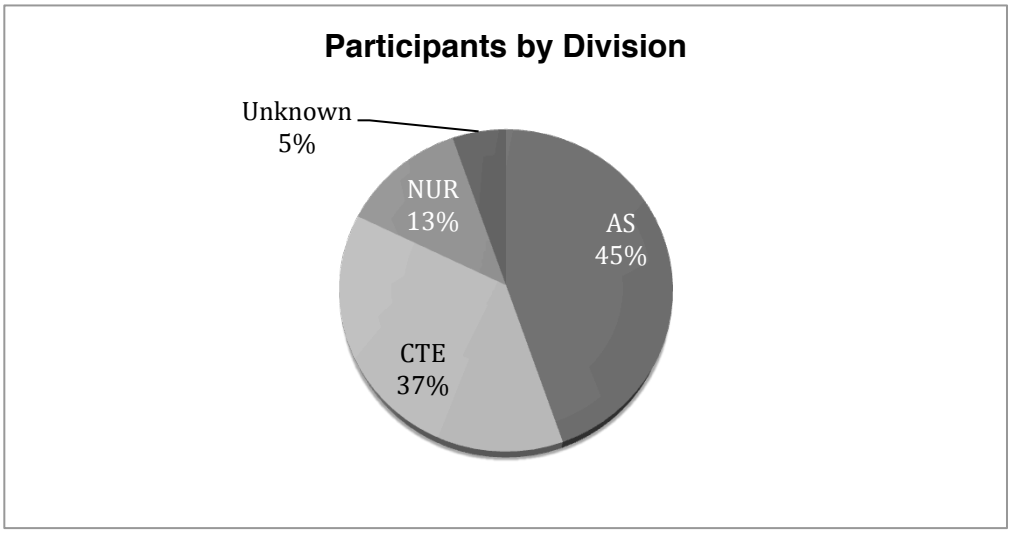


Q3. Faculty status

a. Full-time: 40 (71%)
b. Adjunct: 14 (25%)
c. Unknown: 2 (4%)

Q4. Division

a. AS: 25 (45%)
b. CTE: 21 (38%)
c. Nursing: 7 (13%)
d. Unknown: 3 (5%)

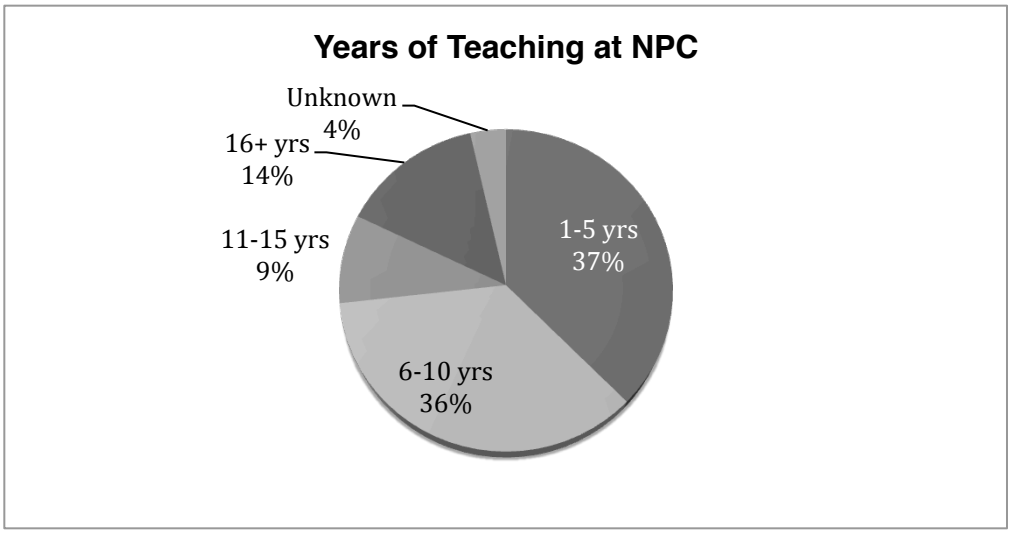


Q5. Department (too many to list here)

Q6. Courses teaching (too many to list here)

Q7. Years of teaching at NPC

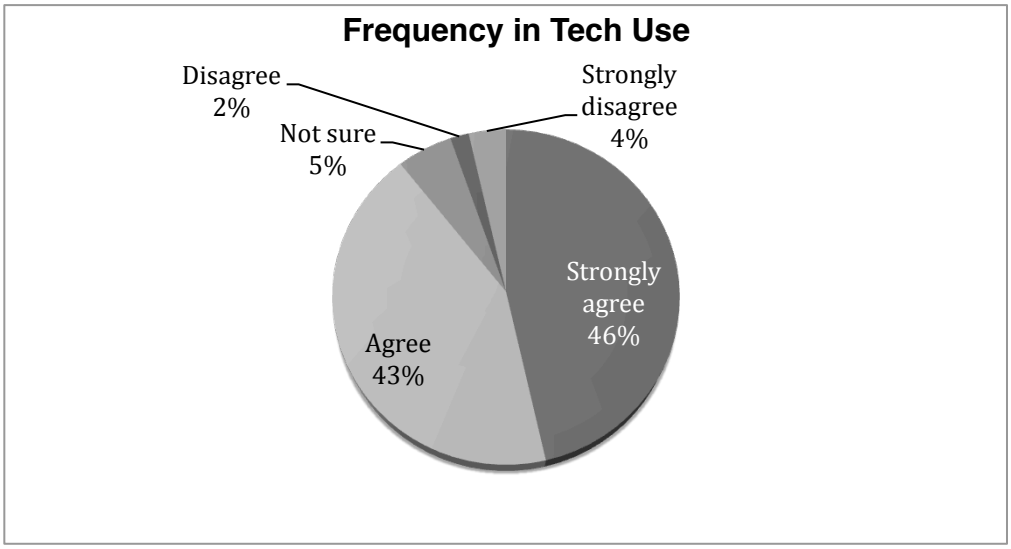
a. 1-5 yrs: 21 (38%)
b. 6-10 yrs: 20 (36%)
c. 11-15 yrs: 5 (9%)
d. 16+ yrs: 8 (14%)
e. Unknown: 2 (4%)



II. Technology Proficiency Self-assessment (Questions 8-16)

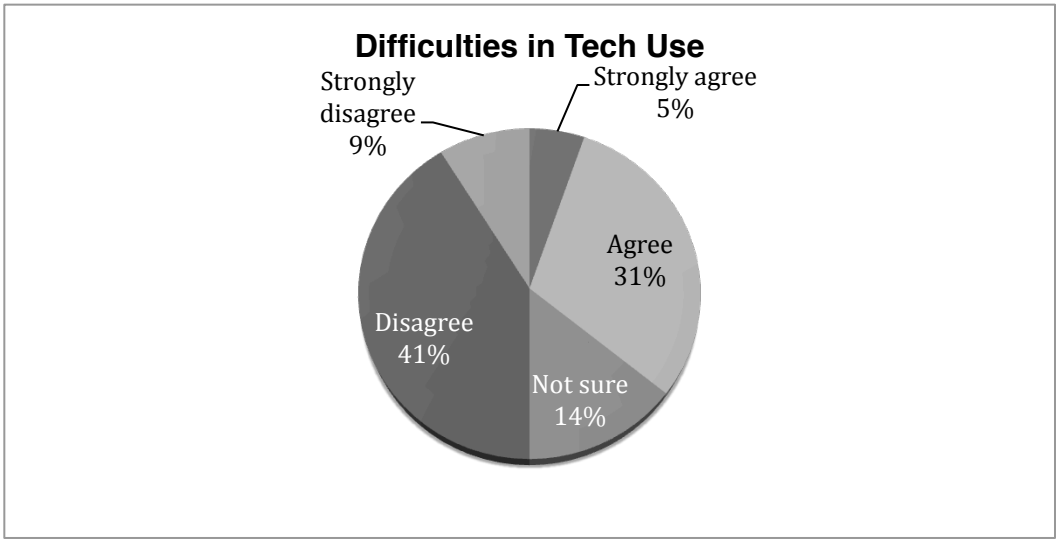
Q8. I use technology a lot for my teaching and teaching related work.

a. Strongly agree: 26 (46%)
b. Agree: 24 (43%)
c. Not sure: 3 (5%)
d. Disagree: 1(2%)
e. Strongly disagree: 2 (4%)



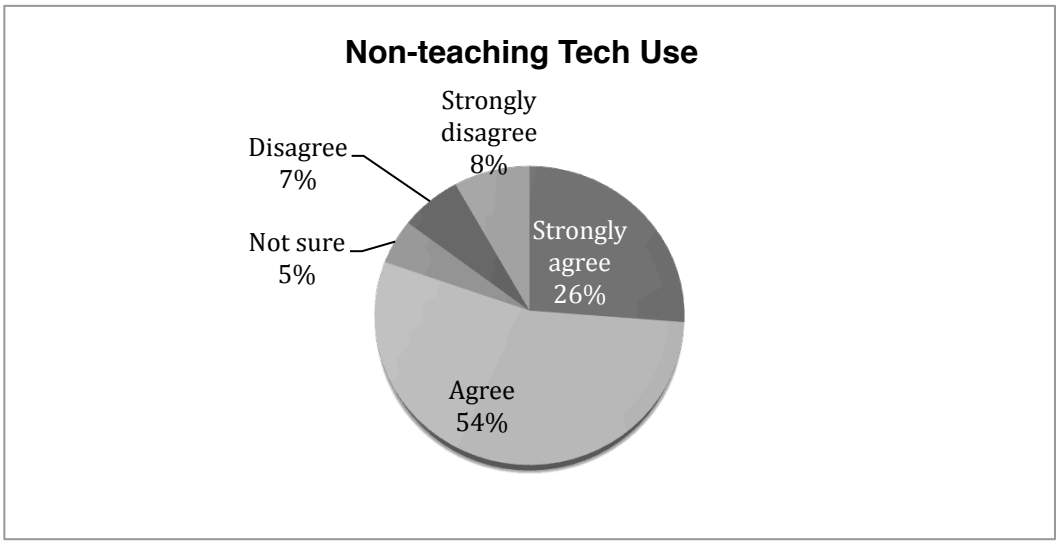
Q9. I often have difficulties using technology for my class.

a. Strongly agree: 3 (5%)
b. Agree: 17 (30%)
c. Not sure: 8 (14%)
d. Disagree: 23 (41%)
e. Strongly disagree: 5 (9%)



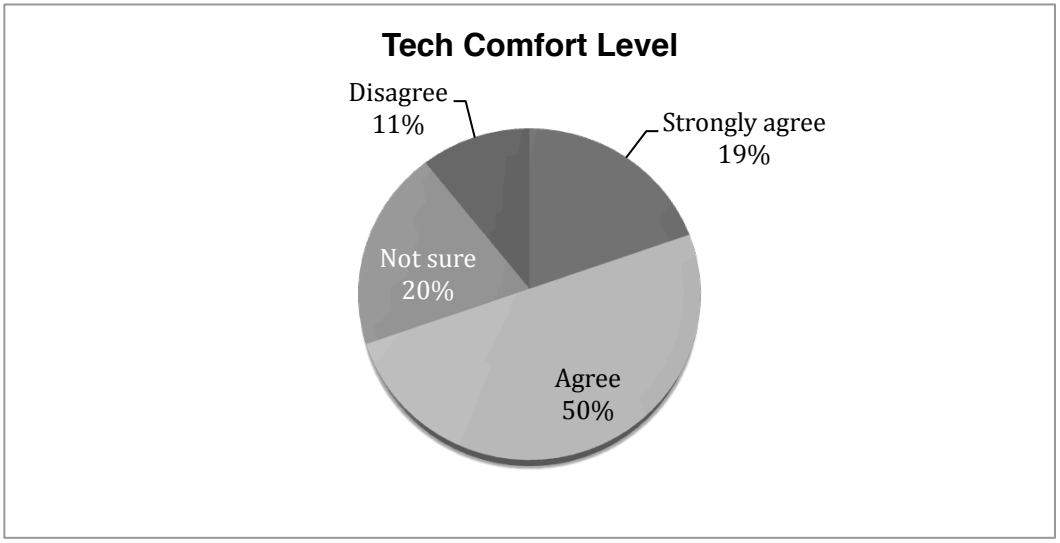
Q10. I use technology a lot for non-teaching purposes.

a. Strongly agree: 16 (26%)
b. Agree: 33 (54%)
c. Not sure: 3 (5%)
d. Disagree: 4 (7%)
e. Strongly disagree: 5 (8%)



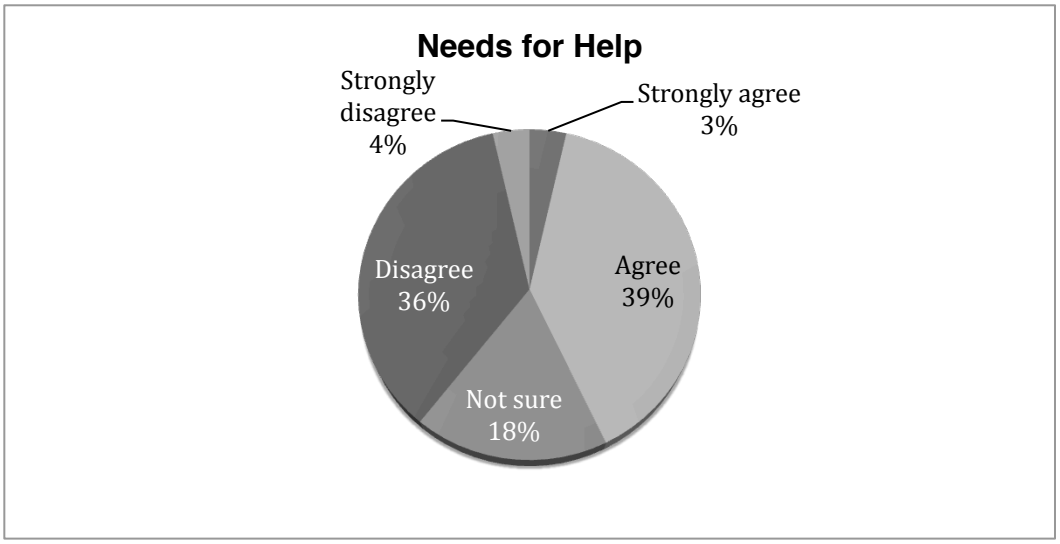
Q11. I feel very comfortable with technology.

a. Strongly agree: 11 (20%)
b. Agree: 28 (50%)
c. Not sure: 11 (20%)
d. Disagree: 6 (11%)
e. Strongly disagree: 0



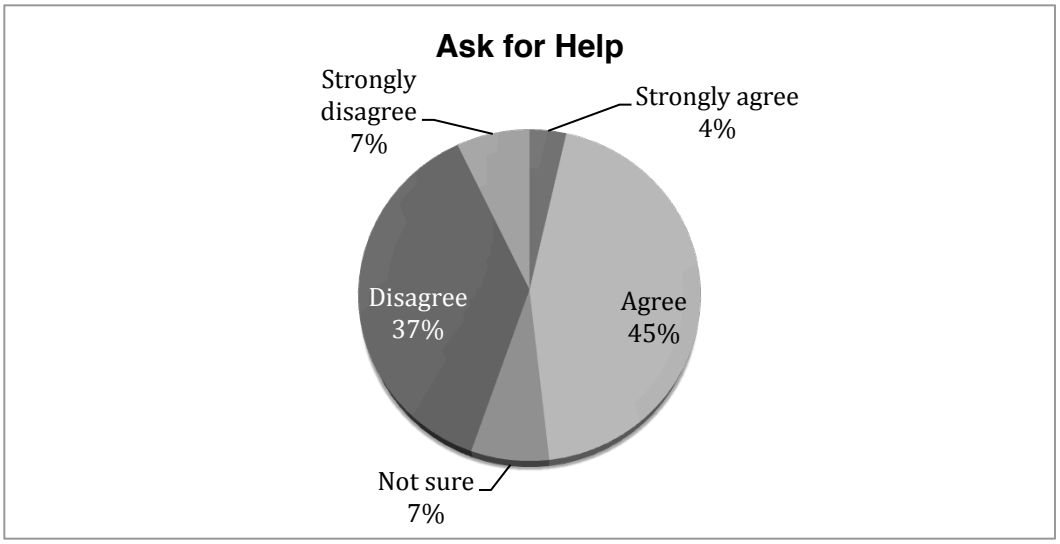
Q12. I often feel I need help with technology.

a. Strongly agree: 2 (4%)
b. Agree: 22 (39%)
c. Not sure: 10 (18%)
d. Disagree: 20 (36%)
e. Strongly disagree: 2 (4%)



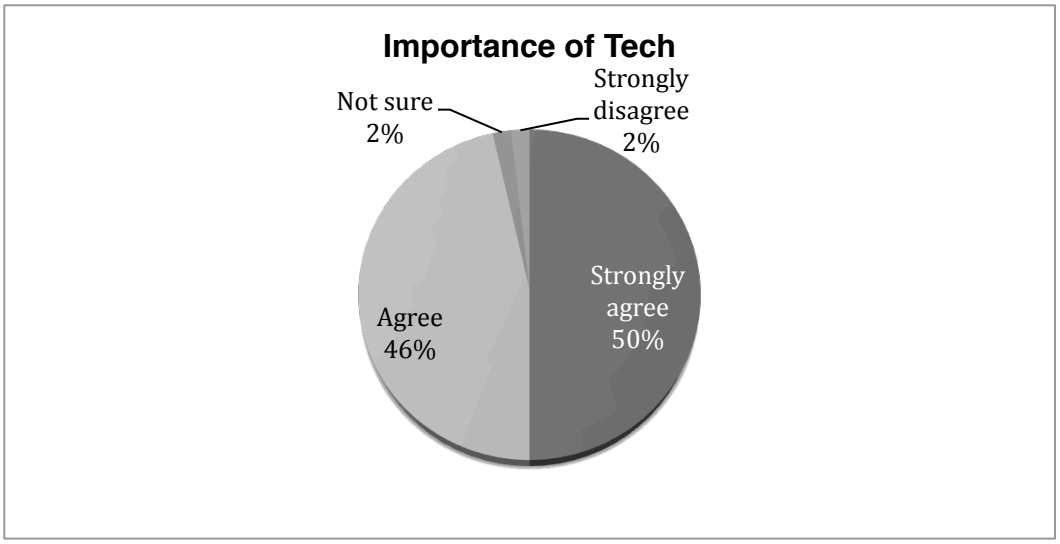
Q13. I often ask others to help me with technology.

a. Strongly agree: 2 (4%)
b. Agree: 25 (45%)
c. Not sure: 4 (7%)
d. Disagree: 21 (38%)
e. Strongly disagree: 4 (7%)



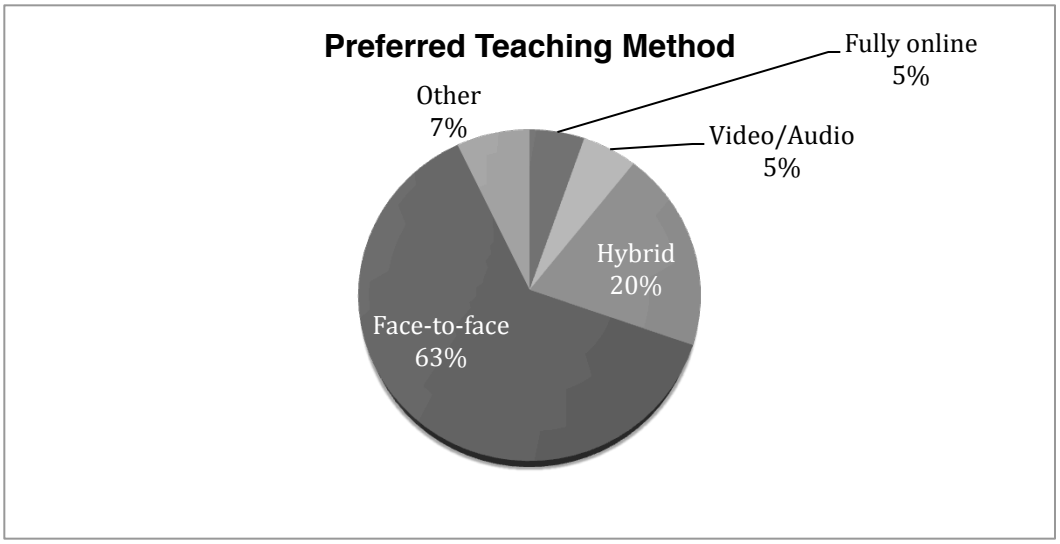
Q14. I think technology is important to my teaching.

a. Strongly agree: 28 (50%)
b. Agree: 26 (46%)
c. Not sure: 1 (2%)
d. Disagree: 0
e. Strongly disagree: 1 (2%)



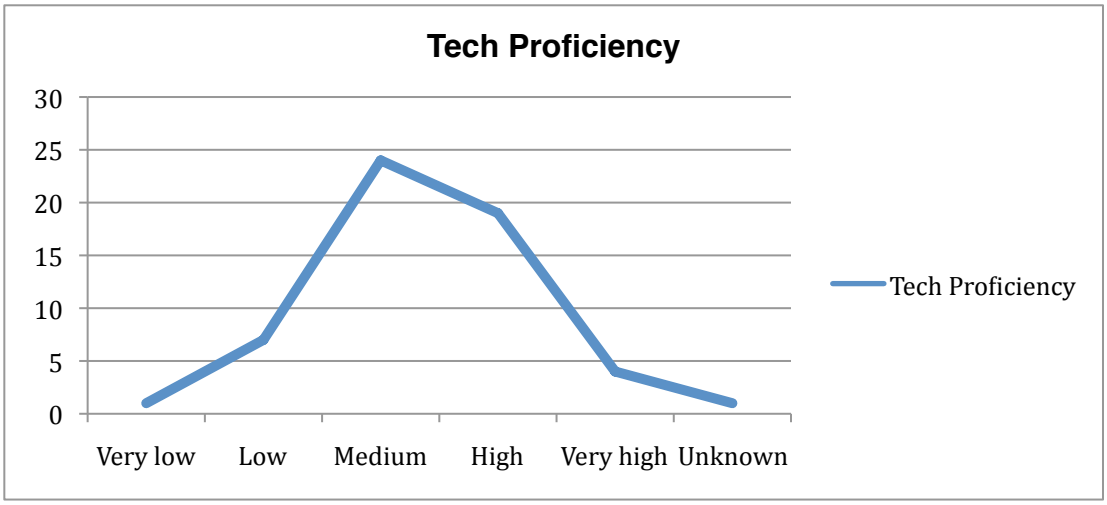
Q15. What is your preferred teaching method?

a. Fully online: 3 (5%)
b. Video/audio: 3 (5%)
c. Hybrid (online and face- to-face): 11 (20%)
d. Traditional face-to-face: 35 (63%)
e. Other: 4 (7%)



Q16. Please rate your technology proficiency level: (1-5 from low to high)

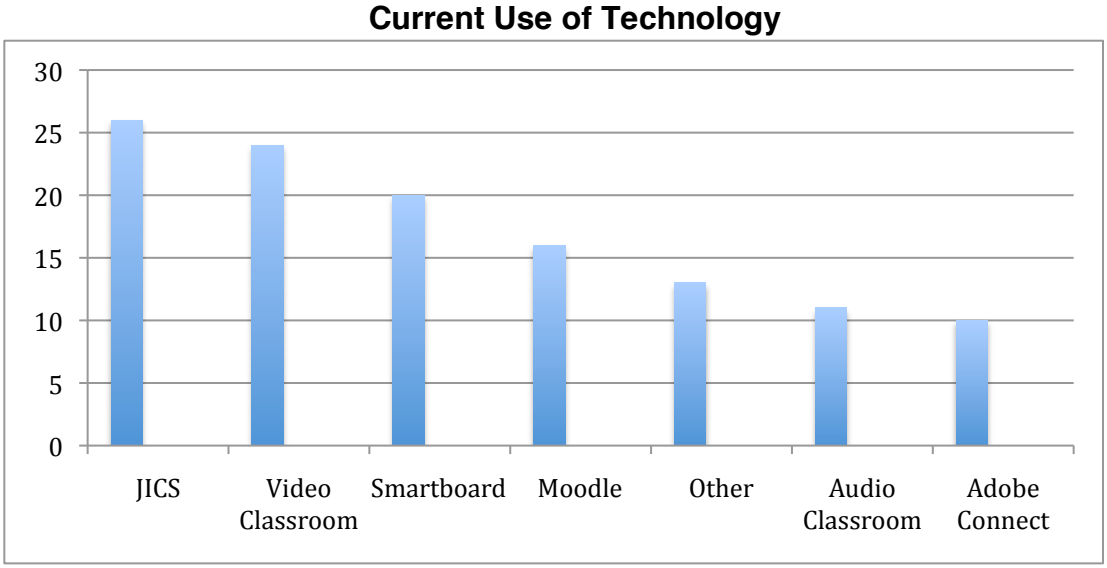
a. One (Very Low): 1(2%)
b. Two (Low): 7 (13%)
c. Three (Medium): 24 (43%)
d. Four (High): 19 (34%)
e. Five (Very High): 4 (7%)
f. Unknown: 1 (2%)



III. Campus technology use (Questions 17-24)

Q17. College-supported technologies you use often (choose all that apply):

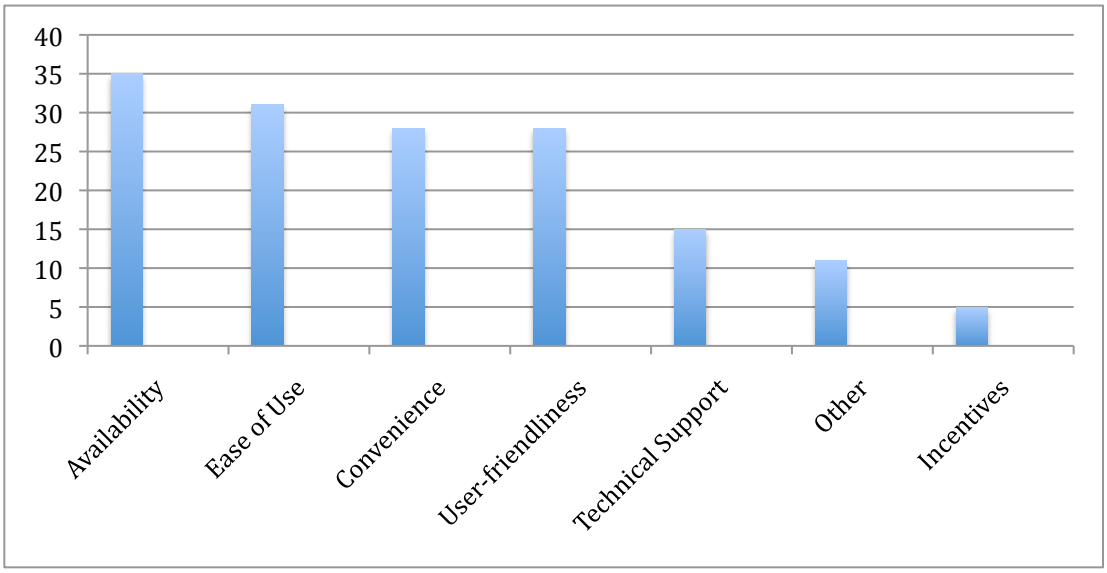
a. JICS: 26 (46%)
b. Moodle: 16 (29%)
c. Video Classroom: 24 (43%)
d. Audio Classroom: 11 (20%)
e. SmartBoard: 20 (36%)
f. Adobe Connect: 10 (18%)
g. Other: 13 (23%)



Q18. You choose the technology for instruction based on its (choose all that apply):

a. Convenience: 28 (50%)
b. Ease of use: 31(55%)
c. User-friendliness: 28 (50%)
d. Technical support: 15 (27%)
e. Incentives: 5 (9%)
f. Availability: 35 (63%)
g. Other: 11 (20%)

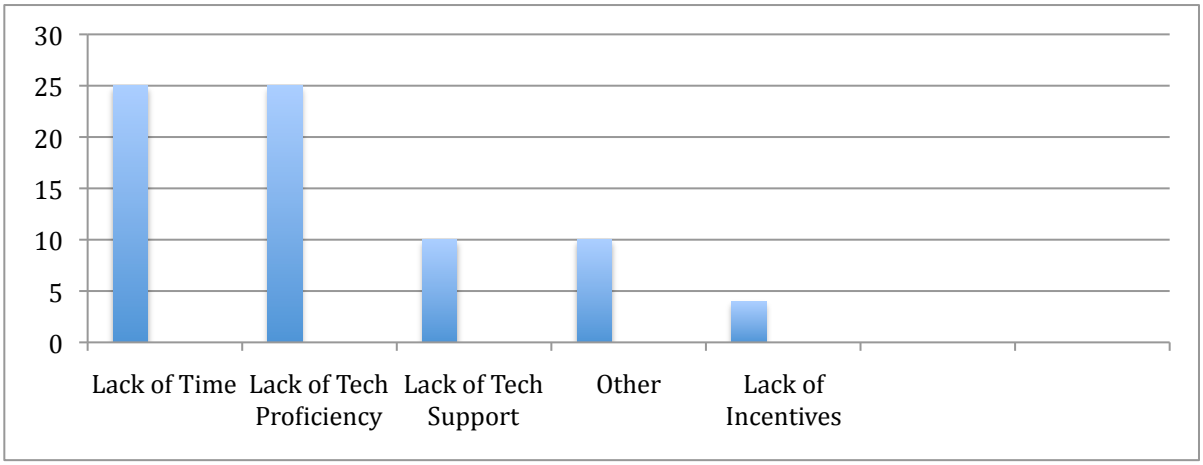
Criteria of Choosing Technology



Q19. What are the factors that prevent you from using the technology (choose all that apply)?

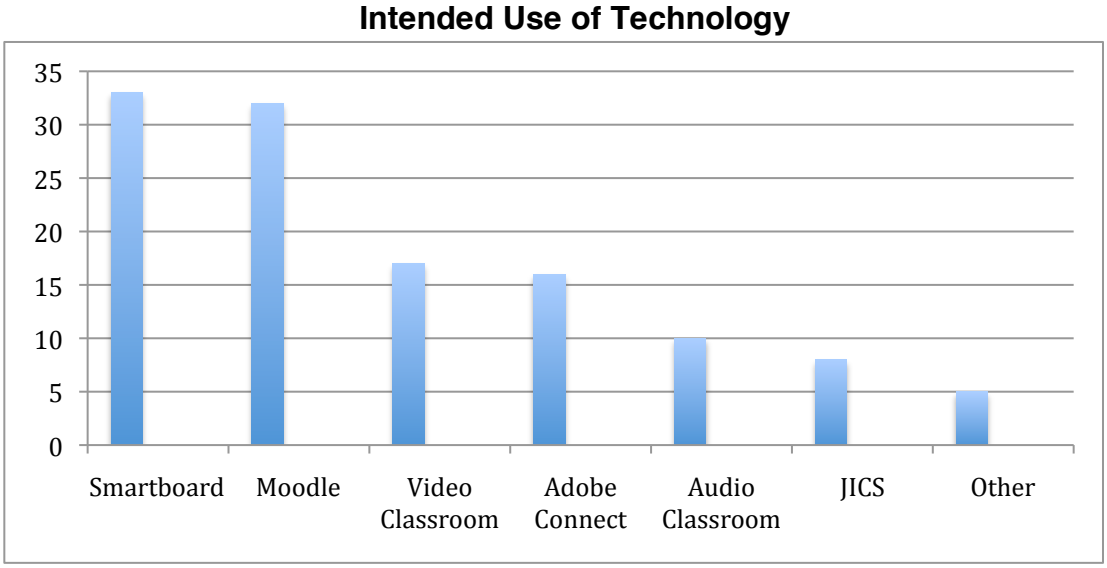
a. Lack of time: 25 (45%)
b. Lack of technical support: 10 (18%)
c. Lack of incentives: 4 (7%)
d. Lack of technology proficiency: 25 (45%)
e. Other: 10 (18%)

Prohibitors of Tech Use



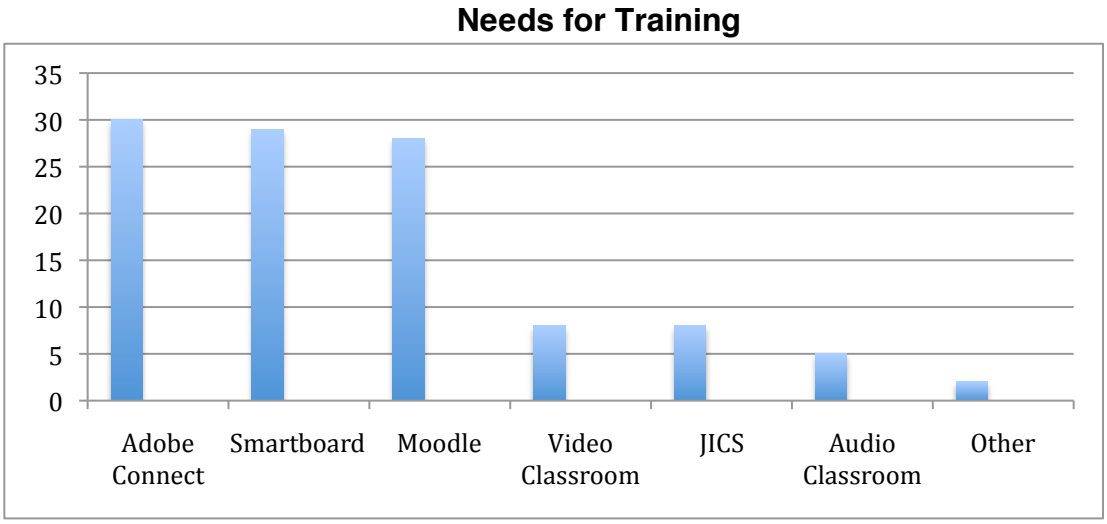
Q20. Please choose the NPC-supported technology you would like to use in your class (choose all that apply):

a. JICS: 8 (14%)
b. Moodle: 32 (57%)
c. Video Classroom: 17 (30%)
d. Audio Classroom: 10 (18%)
e. SmartBoard: 33 (59%)
f. Adobe Connect: 16 (29%)
g. Other: 5 (9%)



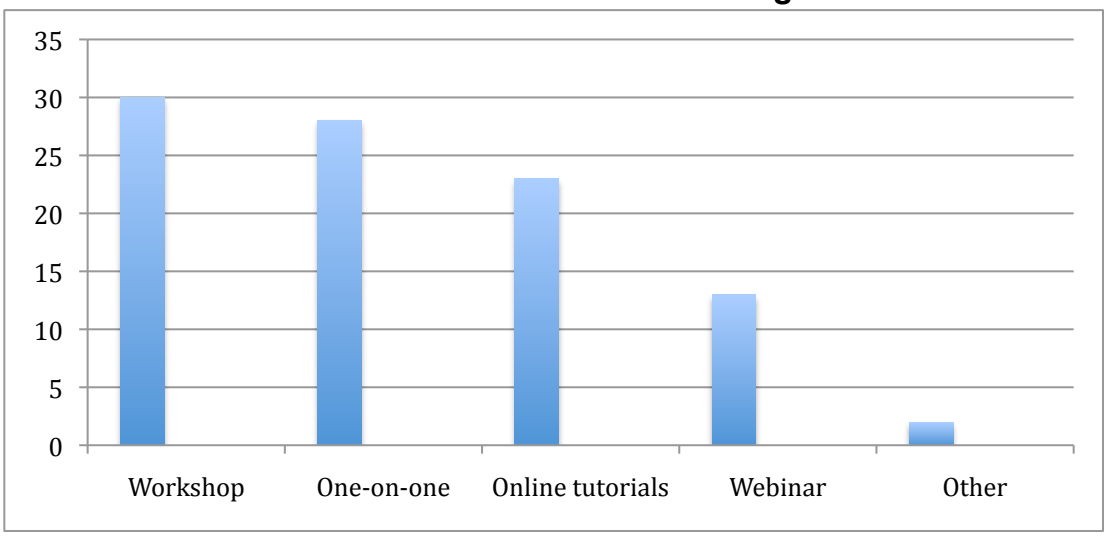
Q21. Please choose the NPC-supported technology you would like to have more training on (choose all that apply):

a. JICS: 8 (14%)
b. Moodle: 28 (50%)
c. Video Classroom: 8 (14%)
d. Audio Classroom: 5 (9%)
e. SmartBoard: 29 (52%)
f. Adobe Connect: 30 (54%)
g. Other: 2 (4%)



Q22. Please choose your favorite training format (choose all that apply):

a. Online self-paced tutorials: 23 (41%)
b. Group training workshop: 30 (54%)
c. One-on-one training: 28 (50%)
d. Online training webinar: 13 (23%)
e. Other: 2 (4%)



Q23. How often do you want the training to be conducted?

a. Regularly: 32 (57%)
b. On-demand: 19 (34%)
c. Other: 5 (9%)

Q24. You prefer to be informed with the technology/training opportunities via

a. Email: 53 (95%)
b. The NPC website: 8 (14%)

c. Mail: 2 (4%)
d. Phone: 5 (9%)
e. Other: 2 (4%)

IV. Open-ended (Questions 25-26) – Themes generated from the responses

Q25. Expectations and concerns regarding the **use of technology** at NPC:

- Lack of reliability/consistency of the infrastructure (e.g., online platforms, Internet connection, wireless, video streaming etc) has limited pedagogical practices
- Instructors' tech literacy needs to be enhanced and timely tech support is expected (troubleshooting and Q&A)
- Students need better tech literacy and support (e.g., better training materials, better online bookstore experience, and easier access to resources - too many usernames/passwords). Wireless access throughout all locations and individual login to use at any NPC computer are expected
- Faculty need to be kept informed of new technological affordances
- Accessibility for students (computer labs, presentation tools) needs to be improved
- Lack of time: current teaching load vs. time for online course development (without release or overload pay) and professional development
- NPC is responding effectively to the increasing needs for technology

Q26. Expectations and concerns regarding **technology training** at NPC:

- Demand for more training (Moodle, Smartboard, MyNPC gradebook, etc.) and get prepared for teaching online.
- Lack of training leads to the ineffective and insufficient use of technology.
- Training to be offered regularly (monthly?), more frequently, more effectively, and available at other campuses (not just in Show Low)
- Training to be more hands-on and relevant
- Student digital divide and lack of tech literacy need to be addressed
- Training should be offered in multiple forms to address different needs: e.g., lack of time for on-site training can be addressed by online self-paced training, a training course can be offered once a year, and training is available on-demand (when needs and problems arise)
- A workflow for training request needs to be streamlined
- Consistency with NPC's tech standards
- Other technologies besides those used for teaching

SUMMARY OF FINDINGS

Demographic

Among the 56 respondents, 52% are females and 41% are males with an average age of 50s.

The respondents consist of 40 full-time faculty members (71%) and 14 adjunct (25%) from three academic divisions (Arts and Sciences, 45%; Career and Technical Education, 38%; Nursing and Health Education, 13%).

While 38% taught less than 6 years at the College, 59% are more experienced with NPC (6-10 years, 36%; 11-15 years, 9%; 16+ years, 14%).

The findings mirror the demographic landscape of the current faculty population. While the age and years of service may be positively correlated to experience, they can also implicate challenges in the ability of adoption of new technology and resistance to change.

Technology Proficiency Self-assessment

While the majority (89%) use technology a lot for teaching and many (86%) use technology a lot after teaching, half of the respondents (50%) agree or are not sure that they often have difficulties using technology.

96% agree that technology is important to teaching and 70% feel comfortable with technology. However, traditional face-to-face (63%) is still the preferred teaching method, followed by hybrid (20%), fully online (5%), and video/audio (5%).

Although a significant amount of respondents rate their technology proficiency level as medium (43%) and high (35%), 43% often feel they need help with technology and 48% often ask for help.

The findings suggest that the faculty have fairly high technology comfort level and self-efficacy – a positive indicator of beliefs towards technology integration. However, lack of technology proficiency and resistance to pedagogical change will likely get in the way.

Technology Use and Training

Most respondents choose technology for instruction based on its Availability (63%). Ease of Use (55%), Convenience (50%), and User-friendliness (50%) are

also important factors for technology selection, followed by Technical Support (27%). Incentives (9%) are of least consideration in making the technology adoption decision.

Lack of Time (45%) and Lack of Technology Proficiency (45%) are the two biggest prohibitors in faculty's use of technology, followed by Lack of Tech Support (18%). Incentives (7%), again, play an insignificant role in this regard.

Despite the fact that JICS (46%) and Video Classroom (43%) are currently the two most used technologies on campus, the data indicate that Smartboard (59%) and Moodle (57%) are the two most desired technologies that faculty intend to use in their class in the future, followed by Video Classroom (30%), Adobe Connect (29%), Audio Classroom (18%), and JICS (14%).

Faculty's desire for new technologies resonates with the fact that they are most interested in getting more training on Adobe Connect (54%), Smartboard (52%), and Moodle (50%), followed by Video Classroom (14%), JICS (14%) and Audio Classroom (9%).

There is a rather diverse preference range on the format of training: 54% of the respondents favor Group Training Workshops, 50% enjoy One-on-one Training, 41% like Online Self-paced Tutorials, and 23% vote for Online Training Webinars. 57% want the training to be conducted regularly while 34% prefer on-demand. In addition, most faculty members (95%) prefer to be informed with technology/training opportunities via Email.

The findings indicate that Adobe Connect, Smartboard and Moodle will likely become the main technologies favored by faculty because of their availability, ease of use, convenience, and user-friendliness. Faculty members need more training opportunities in multiple delivery mode to be able to make effective use of these technologies.

Expectations and Concerns

Faculty's main concerns lie on the lack of reliability/consistency of the current technology infrastructure, lack of time for professional development, limited technology literacy on the part of instructors and students, lack of timely support, and limited student access to technology training and resources.

They expect that training is provided more frequently and available at various campus locations, and that training is more hands-on, relevant, streamlined, consistent with NPC's tech standard, and offered in multiple forms to address different faculty needs.

RECOMMENDATIONS

Based on the findings, the Faculty in Educational Technology and the IS will work closely with LTC and other stakeholders to develop multiple formats of training sessions (in accord with Title III initiatives and NPC DE Guidelines) including:

- **Workshop:** a tentative Spring 2011 Training Workshop schedule for Moodle, Smartboard, Adobe Connect
  (1) February – Moodle, Adobe Connect
  (3) March – Smartboard
  (4) April – Adobe Connect, Moodle
  (5) May – Smartboard
- **One-on-one (ad hoc):** available on demand
- **Webinar:** Regular interaction with faculty on tech issues through Adobe Connect
- **Pilot:** Encourage faculty to be involved in pilot courses using Adobe Connect, Model Classroom and other learning technologies; document successful examples and use faculty pioneers as inspiration to others
- **Online tutorials and information**: Ongoing development of the eResource site (online tutorials, technology opportunities, standards, and documentation of technology implementations and pedagogical practices)
- **Evaluation:** Ongoing evaluation of technology training and implementations (feedback from each training session, assessment of training materials, QM-based online course evaluation, and collaboration with the Title III evaluator)