Chief Technology Officer Mentor Program – Cohort 9

California Education Technology Professionals Association

Executive Summary

Presented by

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Kick off Session

The program kick-off meeting, held February 6th in Sacramento and comprised 8 sessions of individual topics in addition to breaks and networking opportunities. The day began with welcoming remarks from Andrea Bennett - CETPA Executive Director, Peter Skibitzki - CETPA President, Nancy Sullivan – CSIS Chief Operation Officer, and Dane Lancaster – CCSESA/TTSC. This was followed by a keynote by Barrett Snider from Capital Advisors Group highlighting current topics at the state level such as the Governor's budget and impacts on technology in K12. During the following session break candidates were able to meet with their mentors and other participants. Andrea Bennett led the next session that covered program expectations, requirements and a review of the extensive resources available to candidates. The last session prior to lunch was focused on Canvas training. Canvas is the Learning Management System (LMS) that the candidates will be using this year.

Bob Blackney from Azusa Unified provided a session on Leadership, Vision and Purpose following lunch. The final session for candidates was provided by Nancy Sullivan and Robin Canale on Building Our Professional Learning Community. The pre-work had introduced the concept of PLCs and the content of this session was focused on creating a structure for the PLC we would form in class. The session included setting norms, reflective writing, the class rubric, and several ice breaker exercises which included naming our cohort; the Uncommon Cohort.

The information provided during the Program Kick-off is very useful to the K-12 Technologist; providing a better understanding of the state level programs, agencies and their purpose in addition to the development and learning activities focused on PLCs. PLCs can be used in K-12 organizations to promote open dialogue and sharing of ideas to improve any focus area. The skills learned during this session, reflective writing, creating norms, collaboration and de-privatizing can be used by the candidates as they return to work in their respective agencies.

Leadership and Strategic Planning Summary

The second seminar, Leadership and Strategic Planning was held February 7th, 2015. The session included five modules in addition to an introduction, networking at lunch, a group activity, and the wrap up. The focus of the day was on what strategic leadership is and how it can be used in K-12 education. This was emphasized with several inspiring quotes and videos with group discussion. The group reviewed information from The Speed of Trust by Stephen M. R. Covey with a focus on building relationships and trusts within educational organizations for improved results and impact. The candidates were prepared to return to their organizations as more effective leaders with a better understanding of the dimensions of trust, credibility and competence, and the 13 relationship trust behaviors.

In the afternoon the group discussed their individual development plans based on the Microsoft Competency Wheel, and discussions with their Mentors and other advisors. There was an emphasis on focusing on strengths; talent, skills and knowledge. Participants worked together to provide more detail to their plan and discuss strategies.

Lunch was followed by a group activity that provided an excellent example of interactive learning and emphasized thinking out of the box as a leader. This was followed by a discussion on Predictable Results in Unpredictable times by Covey. The day ended with a comprehensive review of organizations and the environment of K12 education in California with focus on how a CTO can be a positive influence for their district or educational entity. The class also reviewed and discussed the National Technology Plan.

The CTO candidates garnered a number of references from the day including the Microsoft Competency Wheel. The Wheel can assist the CTO candidates in understanding the full breadth of competencies for a CTO. This prepares the candidates to continue lifelong learning and improve their support of their districts.

Professional Development

Professional Development was the Friday evening topic of the second CCTO weekend sessions. The mentees experienced excellent professional development as recipients received training about Professional Development from Kris Linville, Educational Technology Director at Irvine Unified School District. Kris invited the class to engage in discussion using a back channel, TodaysMeet; demonstrating how to use this tool in training. The class reviewed the professional learning survey that had been completed prior to class as a prerequisite. The similarities and disparities of the survey results were discussed.

Kris provided information on several training philosophies and models. As an example, explain it like I am 5 - ELI5, is a slang term to ask for a simple explanation to a complex topic. Kris also covered broader topics like the SAMR model. This is a model designed by Dr. Ruben Puentedura to help educators infuse technology as part of education. It divides the impact of technology into three areas; substitution, augmentation, modification, and redefinition. Substitution and augmentation are enhancing a way of accomplishing a task compared to modification and redefinition which are transforming how a task is accomplished.

The facilitator reviewed the learning objectives and artifact requirements. The artifact is planning process for professional development that includes a matrix of stakeholders and key items to consider when planning professional development. The evening concluded with several helpful hints on presentation and preparation for providing professional development.

Educational Technology

The Saturday that was dedicated to Educational Technology was led by Sarah McFarland and Jeremy Davis. The day began with Sarah sharing several resources for materials on Common Core. This was followed by a discussion on Smarter Balance Assessment Testing with Sarah and Jeremy, along with members of the class, sharing their experiences which highlighted the importance of planning. The discussion on Common Core Funding began with the compilation of survey questions the group responded to as part of the prerequisites. The survey questions focused on the role of IT and the CTO in preparation and leadership for Common Core Funding allocation at our various educational entities. This discussion of survey results provided a segue to areas of focus for a CTO planning a successful Common Core strategy; funding, implementation, support and professional development. A document with a list of free professional development resources was provided. The morning concluded with the class divided into groups to discuss the pre-reading the Horizons Report.

The afternoon began with the groups presenting their findings from the Horizons Report discussion. Topics included a wide variety of future technology considerations: 1:1, bring your own device, gamification, the internet of things, learning analytics, cloud computing and wearable technology.   The UC Doorways website was introduced to the class and the importance of the A-G requirements was emphasized. The variety of educational agencies was drawn upon for the topic of potential IT organization structures. These potential structures ranged from silos of Educational Technology and Information Technology to a single combined unit led by a CTO at the cabinet level. The final segment of the day was focused on some of the legal aspects facing the CTO; Children's Online Privacy Prevention Act (COPPA), Family Education and Privacy Act (FERPA), Child Internet Protection Act (CIPA), and the Chavez Bill.

Fiscal Management

The Fiscal Management seminars were packed with high level overviews to provide big picture understanding in addition to deep dives in critical information for a successful CTO. Fiscal Management was presented on Friday evening and all day Saturday. The class participated in several interactive exercises over the two days. These exercises included the California State Accounting Manual (CSAM), and Standard Accounting Code Structure (SACS), negotiations, identifying your personal power profile, conflict resolution, negotiations and ethics.

Peter Skibitzki, Director of Administrative Operations for the Placer County Office of Education began with a very helpful overview of historic changes in school funding for California. With this background set, Peter delved further into more current topics such as Local Control Funding Formula (LCFF) and Local Control Accountability Plan (LCAP). Peter also presented several models to assist the CTO Mentor Candidates with strategic thinking. The Iceberg model used in system thinking demonstrated that the visible portion of a system only represents a small percentage of the whole. The processes, structures, culture/commitment are unseen but represent the majority of the whole. The class reviewed the SWOT model; determining strengths, weaknesses, opportunities and threats. Peter also presented the Logical Framework Approach which is widely used in problem solving and project management. This breaks projects down to interrelated components; activity, outputs, purpose and goal.

The Business Principles and Concepts for Technical Managers portion of the seminar included several aspects of managing operations. Peter presented information on decision making tools; return on investment (ROI) and total cost of ownership, TCO. The seminar also included a discussion and comparison of Indirect compared to Direct costs. Process planning and Process Improvement were also covered. A key take away was two ways to create improvement; improve a process or solve a problem. Saturday included a presentation on E-rate. E-rate is an important revenue opportunity for schools that every CTO must be familiar with. The Universal Service Administrative Company (USAC) under the Federal Communications Commission (FCC) manages the Schools and Libraries Program. The seminar including information on the program and recent funding structure changes that will impact schools ability to obtain funding.

Security Fundamentals Summary

Security Fundamentals was presented by Aaron Barnett, Director of Information Systems at Moreno Valley USD and Jon Robinson, President, Digital Scepter. After introductions Aaron led the class in a discussion of the internet of things. This demonstrated the impact of internet and internet security in our daily lives. This was followed by a discussion of innovations that will impact us; robots, 3D printing, driverless cars, an all IP world and haptic interfaces. This was based on an article by Gary Shapiro, President of CEA.

Aaron shared a variety of security vulnerabilities and exploits from news sources and personal experience. Statistics were presented that demonstrated the exponential increase in internet users worldwide and the class discussed the implications of this growing universe. After fueling the participant's interest with these examples Mr. Barnett covered some legislative considerations for security from the perspective of CTO's responsibility to the learning community with an emphasis on students. These included California's Database Security Breach Notification Act CA SB 1386, California SB-46 Personal information, The Family Educational Rights and Privacy Act (FERPA), COPPA Children's Online Privacy Protection Act Federal Law, AB 1584 Protecting Student Records Under 3rd party Contracts, AB1442 Students' Privacy in Social Media, S.B. 1177 SOPIPA Student Online Personal Information Protection Act. Jon Robinson followed with an overview of the security triangle; availability, reliability and confidentiality. Jon also provided several real world examples and statistics to emphasize the growing threat of data breaches and provided several recommendations for best practices.

Organizational Management Summary

The seminar, presented by Lori Owens and Bob Owens, began with a discussion of organizational culture and the importance of understanding the importance of the informal organization. The informal organization is compared to an iceberg where only a small portion of the whole is visible above water.

Change Management was the next topic addressed with personal anecdotes from Lori and Bob with recommendations and process framework from several sources. These techniques were emphasized by the class participating in the Buy-in Game. Several archetype personalities as change resistors were presented and the class discussed how to address, manage and achieve buy-in each case presented. The discussion moved to conflict management with an interactive activity for the class participants to determine their own style of managing conflict.

Problem solving techniques included several tools and methodologies for problem solving in the work place. Group think was also addressed. The session ended with a discussion of ethics from the view of a CTO with group exercises which emphasized the main points and garnered class discussion.

Technology Infrastructure and Data Management Summary

Technical Infrastructure and Data Management was presented on Friday evening, June 5th, by Jeremy Powell, Director of Technology, Placentia-Yorba Linda Unified School District. The evening began with a group discussion of our pre-work, obtaining information about our individual data centers and systems. The group shared opportunities for improvements. The next topic was a lively discussion about managing competing technologies in a K-12 environment with an emphasis on communicating with the customer base. Jeremy introduced data governance and the importance of identifying the system of record. The participants discussed various scenarios and identified the data owners for that scenario. The class discussed data quality and data security in relationship to data governance. Jeremy wrapped up the evening with a review of the artifact assignment.

Project Management Summary

Robin Canale, our instructor for Project Management, began the day with introductions and a discussion about our personal development plans from the kick-off session. After a break the class participated in group activities that highlighted the dynamic political nature of projects and the importance of communication. The lively group activities were followed by a discussion about the differences between a manager and a project manager. The discussion the discussion transitioned to what is project management and what competencies does a project manager need. Project success factors and research on trends in management priorities were discussed. Quality frameworks such as Deming and Juran were compared and contrasted.   The topic culminated with a discussion about project planning techniques and approaches.

The afternoon continued with problem solving techniques, goal setting and decision making. Robin introduced frameworks for assessing and mitigating risks in projects. A group activity provided an opportunity for participants to practice those skills and techniques. Conflict management was discussed including identifying your personal conflict management style and techniques for conflict resolution. The topic closed with a discussion on politics and participants creating a 5 minute elevator pitch. Robin reviewed the artifact assignment and answered questions before ending the day.

Assessment and Accountability Summary

The weekend began with Craig Blackburn, Director of Technology Programs and Instructional Support at Santa Clara County Office of Education, reviewing the agenda and objectives for the weekend. A review of prior topics such as common core state standards, CCSS, California Assessment of Student Performance and Progress, CAASPP, and the Smarter Balance Assessment Consortium, SBAC. Craig led a discussion about the current transition in assessment, past and future. The tables discussed tables discussed the pre-work reading on Annual Performance Index, API, and Annual Yearly Progress, AYP. This was followed by discussions about the interviews we conducted with our assessment coordinators, how assessment data is used in the classroom, and how assessment data is stored and managed. Common Core State Standards were reviewed with respect to the role of a CTO. Craig framed a class discussion with Bloom's Taxonomy. A history of Assessment was presented with an emphasis on how SBAC differs from previous assessment. Accountability included a review of Federal compared to State requirements. This was followed by an in-depth review of API and AYP. The evening ended with a review of the objectives and verification that all were met.

Saturday was an interactive group exercise that worked through several complex issues that a new CTO might experience. Ethical, political and technical issues were addressed with group participation. The weekend concluded with a review of several examples of how school districts have created. Questions were answered about the assignment and the class was concluded.

Personnel Summary

The Personnel Seminar was co-presented by Sue Wieser, Associate Superintendent of Human Resources and Lorrie Owens, Administrator of Information Technology Services; both from the San Mateo County Office of Education. They began by emphasizing the impact that human resource cost has to a school districts budget. The next segment focused on the difference between a leader and a manager and the need for interpersonal skills. The class considered the different management styles with an emphasis on understanding your management style and leveraging it for best results.

Peter Senge's theory of learning organizations and the five disciplines of the learning organization were presented followed by a discussion of management concepts and management ethics. The importance of ethics was demonstrated with a class exercise featuring ethical constructs to discuss. Hiring was emphasized with a presentation followed by a group activity about ideal qualities for new hires. Job descriptions were discussed followed by a review of network engineer job descriptions as a group exercise. More aspects of hiring were also discussed including evaluating applications, paper screening processes, red flags on resumes, the interview process, and reference checking. The impact of social media in a hiring context was also included.

Managing employees includes the onboarding process, managing performance, providing smart goals, and evaluations. Lorrie and Sue covered each of these subjects with lecture and some role playing exercises. The final part of the day covered progressive discipline using the FRISK model. Through the entire day there was an emphasis on the partnership between the hiring manager and Human Resources and the importance to check with HR before taking action.

Student and Staff Centered Aspects Summary

The seminar for Student and Staff Centered Aspects was presented by Steve Thornton, CCTO, and Director of Technology at Menifee USD. The Friday the seminar presented was September 11th. In respect for the September 11th tragedy Steve began the seminar with an excerpt from a tribute from pbs.org which described the event in six words from several different people with images of the victims.

After a moment of silence for the September 11th victims and introductions Steve delved into the background of records retention and destruction covering CCR Title V Section 16020, 16022, 16026, 16027, 16023 and 16025. Given this background Steve reemphasized the classes of records because each must be treated differently. Electronic records were the next area of focus. The instructor reviewed Government Code Section 12276 and Education Code Section 35254. This included some class discussion of changing technologies and the challenges those present. Schools are often called upon to provide evidence and Steve covered the rules of evidence and provided helpful links for further review. This was followed by a deep dive in E-discovery with a focus of the role of technology and the CTO.

The next section provided a compressive discussion of the laws that cover children and student privacy; FERPA, CIPA, COPPA, SOPIPA. The requirements of these laws and their different areas of coverage where demonstrated in a class exercise reviewing scenarios. The instruction drew to a close with a review of new state regulations which came into effect January, 2015; AB1584, AB1442, and SB1177.

Technology Policies, Standards, and Plans Summary

Technology Policies, Standards, and Plans seminar was presented by Robin Canale and Robert Gravina. After introductions and an agenda review the day began with Policy Writing. Robert Gravina. Robert discussed the changing way that our school environment views technology and the consumerization of IT – BYOD. The class participated in a group project to discuss district policies and how applications coming into a school district are vetted and approved. Robert shared the common components of a board policy and process for a board to review and approve a policy. Mr. Gravina provided an example of a Green sheet and discussed the use of a Green sheet.

Robin Canale discussed E-Discovery Policy and the role of Educational Entities. Several resources were provided to assist in developing an E-Discovery policy. The class renewed their understanding of classes of records as presented in the seminar of Student and Staff Centered Aspects. California Code of Regulations Title V sections 16020, 16022, 16026, 16027, and Government Code Section 14576 were highlighted. Education Code section 35254 was also detailed for electronic records.

Compliance with the ADA guidelines was discussed in regards to section 508 requirements. Robin provided a tool to evaluate web pages for compliance. The group ran the tool against web sites of their choice and then discussed the results. The group also discussed website copyrights and fair use. Robert shared a video on the Abilene Paradox and discussed group decision dynamics. The evening ended with a reminder about presentations due for the next day.

Strategic Leadership Summary

Strategic Leadership began with a group activity identifying key things learned from each seminar. The class also shared items that were not covered that could be considered for future cohorts. The first part of the morning was consumed with student presentations, each with a length of 5 minutes, discussing their growth during the program. The Artifact requirements were discussed.

Robert discussed the value and risks associated with Vendor relationships. He recommended that a CTO know legal requirements, district policies and develop a personal ethical framework. To demonstrate these concepts Robert led the class through discussion of ethical scenarios involving vendor relationships.

The afternoon began with a discussion of how politics can impact a CTO. The importance of understand and embracing politics rather than avoiding them was emphasized. Robert led the group through an activity to demonstrate group dynamics followed by discussion of leadership and strategic planning. Robert provided thought frameworks for strategic planning and decision making. The group discussed 9 leadership behaviors. This led to the discussion of the Strategic Plan Artifact and the groups worked together to assess a district Technology Plan against the 5 goals of the National Tech Plan.

Robin led a discussion about the class Book Club reading of Good to Great. All participants felt it was a worthy pursuit. Some participants suggested other books that might be used in the future because the Good to Great book is so prolific and many have already read this book.

Organizational charts were discussed with reflection on understanding hierarchy dynamics for the role of a CTO. Goal setting and alignment with the LEA goals were also covered. The instruction for the day ended with final thoughts and a discussion of the one thing that has changed for the students through the CTO mentor program. Andrea provided information about final presentations, and graduation.