2016
BETTER TOGETHER: CALIFORNIA TEACHERS SUMMIT

A REPORT ON WHAT TEACHERS SAID ABOUT COLLABORATION AND PROFESSIONAL LEARNING

FACULTY RESEARCH TEAM:

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Introduction

On July 29, 2016, the Better Together organizing partners, the Association of Independent California Colleges and Universities (AICCU), California State University (CSU), and New Teacher Center (NTC), brought nearly 8,300 teachers and educators together at 38 sites across the state for the second annual California Teachers Summit.

With an ultimate goal of connecting and empowering teachers, the Summit provides a unique opportunity for teachers to share best practices with their peers, learn from other educators facing similar challenges, and network with colleagues both regionally and statewide. Teachers know best what works in classrooms and where they need more support, so the Better Together organizing partners designed this day of learning and collaboration to be led by teachers, for teachers.

The 2016 Summit featured keynote addresses by teacher and author Kelly Gallagher, who spoke about the importance of integrating writing across curriculums, and actor Ernie Hudson, who shared his inspiring story of rising out of poverty to launch a successful career in Hollywood, with the help of his teachers. At each site local teachers presented TED-style EdTalks highlighting their success stories, challenges, and innovative ideas to help students learn.

To facilitate peer-to-peer learning, we partnered with the Edcamp Foundation to host "unconference"-style Edcamp sessions at our Summit sites. Using principles of connected and participatory learning, the Edcamp model brings educators together to exchange ideas with colleagues throughout their region. Attendees built schedules on the day of the Summit, and anyone could facilitate a session, thus empowering teachers to build on their shared expertise.

Again in 2016, online spaces were created for teachers to take collaborative and shared notes, which captured their conversations, ideas, and suggested resources throughout the day. We left the Summit on July 29 with 1,310 documents of shared notes from the sessions - a valuable resource to inform teacher support, professional development, and standards implementation.

To analyze the data, we again called upon our Better Together Faculty Research Team, a group of six skilled researchers from AICCU and CSU institutions who also completed this data review coming out of our 2015 Summit. We are grateful to the entire Faculty Research Team for their willingness to dive again into such a deep set of data, and for their thoughtful analyses a second year in a row. We hope that this report will drive conversations in California about what teachers need to be successful in their practice, as well as to successfully implement the new State Standards.

Emily W. Davis
On behalf of the Better Together: California Teachers Summit Steering Committee

BETTER TOGETHER STEERING COMMITTEE:

Claire C. Cavallaro, Ph.D., California State University, Fullerton
Kitty Dixon, New Teacher Center
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Ellen Moir, New Teacher Center
Kristen F. Soares, Association of Independent California Colleges & Universities

Better Together Faculty Research Team

The Faculty Research Team (FRT) was composed of six faculty members:

Dr. Ernesto Colín, associate professor in the Department of Urban Education at Loyola Marymount University, whose research interests include indigenous education, culturally responsive pedagogy, instructional technology, and teacher education.

Dr. Maria Grant, professor in the Department of Secondary Education at CSU Fullerton, whose research interests include literacy integration into the content areas, informal learning environments, and science education.

Dr. Lynn Larsen, associate dean and full professor at the School of Education at Brandman University, whose research interests include pre-service teacher assessment, program assessment, program development, special education, online pedagogy, and faculty evaluation.

Dr. Kim Norman, professor and chair of the Department of Elementary and Bilingual Education at CSU Fullerton, whose research interests include children's literacy development and the professional learning of teachers to facilitate collaboration and inquiry.

Dr. Tamara Spencer, associate professor in the Department of Teacher Education and the director of the Teachers for Tomorrow Program at Saint Mary's College of California, whose research interests include early literacy development, urban education, and teacher education.

Dr. Kristin Stang, professor in the Department of Special Education at CSU Fullerton, whose research interests include learning and behavior of students with mild/moderate disabilities and teacher preparation and development.

Executive Summary

The *2016 Better Together: California Teachers Summit* was a unique opportunity for educators across the state to come together to build an organic professional learning community. Through Edcamp sessions held at 38 partnering college and university campuses, pre-K-12 teachers, administrators, and other educators participated in collaborative discussions, sharing their best practices, resources, ideas, and challenges. The participants reported that this time to connect, share resources, and problem-solve with colleagues was the most beneficial aspect of the Summit.

A team of six teacher education faculty analyzed the 1,310 sets of notes taken during the Edcamp sessions, building upon the process completed for the 2015 Summit. The same research team convened to examine and compare data outcomes. The researchers analyzed session data from across the state around four research questions:

- What topics did teachers present for discussion?
- What experiences and ideas did teachers discuss?
- What resources did the teachers mention?
- How do the data from the 2015 and 2016 Summit compare?

What topics did teachers present for discussion?

To address this question, the researchers categorized the Edcamp session titles. Through this analysis, they determined that the sessions addressed a wide variety of topics related to specific grade levels, content areas, and topic areas. The researchers found that the most popular topics discussed (as ranked by frequency) in 2016 were technology, English/Language Arts (ELA), classroom management, topics related to the teaching profession and teacher professional development, positive learning environments, and Science, Technology, Engineering, Art, and Mathematics (STEAM). Within these discussions, it was clear that teachers wanted to focus on California's standards, including the Common Core State Standards, the Next Generation Science Standards, and the related Smarter Balanced Assessments.

What experiences and ideas did teachers discuss?

Again this year, most Edcamp session notes centered on classroom practices, with teachers focusing primarily on pedagogy and classroom management. Teachers also discussed topics related to integrating technology in teaching, relationships, whole school practices, and the California Standards. The full report includes more details about what teachers discussed on each of these topics, providing a fascinating glimpse into classroom and school practices across the state.

What resources did teachers mention?

The researchers again examined the myriad educational resources that were captured in the session notes. Almost 3,500 resources were mentioned, with 20 resources emerging as clear favorites among teachers across the state.

Resources identified serve a variety of purposes, including aiding professional development with colleagues and assisting parents and students at home.

How does the data from the 2015 and 2016 Summit compare?

This year researchers compared findings from the 2015 Summit to this year's. Researchers looked at their 2015 findings for each question and found several interesting shifts. First, there were significantly more session topics, notes, and resources, which suggests that in 2016 teachers were more familiar with the Edcamp model and more willing to put forth topics and resources for discussion.

In addition, session topics shifted: 53% of the topics addressed elementary education vs. just 32% in 2015. In 2016 more teachers discussed teaching innovation, including flipped and flexible classrooms, differentiated instruction, and project-based learning. The 2016 data set also revealed an increase in teacher conversations on integrating technology. In 2016 the number of resources shared by participants more than doubled, and a significant number of those were web- or app-based.

Conclusion

The notes taken during the Edcamp sessions contain valuable insights from a variety of educators, including teachers' increased interest in teaching innovations and integrating technology into the classroom. Through this research process, we are again reminded that educators are deeply collaborative and willing to share their best practices and insights to benefit other teachers, parents, and students. We hope this report will help others seeking to better support the professional learning of California teachers.

NORTHERN CALIFORNIA

1. CSU Chico
2. Humboldt State University
3. Simpson University at Sequoia Middle School

CENTRAL CALIFORNIA

4. Brandman University, Modesto
5. Brandman University, Visalia
6. Fresno State
7. Sacramento State
8. CSU Stanislaus
9. Fresno Pacific University

SAN FRANCISCO BAY AREA

10. Sonoma State University
11. Brandman University, Walnut Creek
12. Saint Mary's College of California
13. CSU East Bay
14. San Francisco State University
15. CSU Monterey Bay

SOUTHERN CALIFORNIA

16. Antioch University
17. Azusa Pacific University
18. Biola University
19. Brandman University, Irvine
20. Cal Poly Pomona
21. Cal Poly San Luis Obispo
22. CSU Bakersfield
23. CSU Channel Islands
24. CSU Dominguez Hills
25. CSU Fullerton
26. CSU Fullerton, Irvine
27. CSU Long Beach
28. CSU Los Angeles
29. CSU Northridge
30. CSU San Bernardino
31. CSU San Bernardino, Palm Desert
32. CSU San Marcos
33. Loyola Marymount University
34. National University at Town & Country Convention Center
35. Pepperdine University
36. Point Loma Nazarene University
37. San Diego State University, Imperial Valley
38. University of Redlands at Lee Pollard High School

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This publication is based on research funded in part by the Bill & Melinda Gates Foundation and State Farm Foundation. The findings and conclusions contained within are those of the authors and do not necessarily reflect positions or policies of the Bill & Melinda Gates Foundation or State Farm Foundation.

Faculty Research Team Process

The research project tied to the second annual Better Together: California Teachers Summit, held in July of 2016, builds upon the process completed for the 2015 Summit. The same research team convened to examine and compare data. Researchers analyzed session data from across the state around four research questions:

- What topics did teachers present for discussion?
- What experiences and ideas did teachers discuss?
- What resources did the teachers mention?
- How does the data from the first and second Summit compare?

The following sections outline the data analysis processes and findings.

What topics did teachers present for discussion?

This question examined topics teachers discussed during breakout sessions. Two researchers examined this by looking at all the research and categorizing the sessions based on their actual titles to better understand what teachers classified as interest areas for the Edcamp discussions prior to attending sessions. Researchers coded session titles to examine grade levels, content areas, and topic areas.

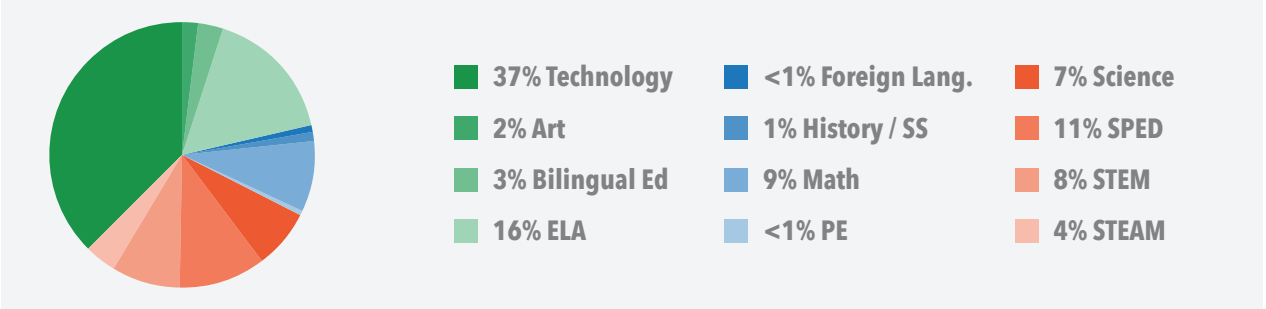
In 2016, there were 1,310 session titles created across the state, and 170 specified an age group in the title (e.g., Arts Education in Elementary). Of these 170 sessions, six were preschool/early childhood, 89 elementary, 21 middle school, 20 high school, and 34 secondary.

Seventy-seven sessions were classified as "other." These focused on topics related to the broader teaching profession, including new teachers, managing data and reporting processes, self-care, career advancement, current events, and school climate issues.

Researchers performed second and third levels of coding of the session titles. Of the 1,310 titles, 1,168 had at least one code sub-category, and 499 had at least two.

Five hundred and sixty (566) sessions focused on specific content areas. The five most prevalent topics related to Technology (200), English/Language Arts (89), STEM and/or STEAM (61), Special Education (55), Science (49), and Mathematics (47). Each content area is detailed below.

SUBJECT AREA



In the area of Technology, the greatest number of sessions that specified a focus area included Google, Google Classroom and/or Google Apps (33), social media (28), technology integration (12), gaming (10), digital citizenship (9), cell [smart] phones (8), and coding and/or robotics (8). Fewer sessions included specific devices such as Chromebooks (5), iPads (4), and 1:1 or bring-your-own-device (BYOD) programs (4).

In English/Language Arts, the greatest number of sessions that included a focus were writing (36), reading (15), or both reading and writing (13), and 11 of these sessions included the workshop approach (e.g., Readers'/Writers' Workshop in K-2). None included CCSS or "standards" in the title.

Sessions on STEM and/or STEAM (61) included a focus on Next Generation Science Standards (NGSS) (9), makerspaces (6) and integration (4). When combined with sessions focused on Science, the total number of sessions that included NGSS increased to 47. Participants' interest in standards was pronounced in the area of Science as NGSS appeared in 38 (77.5%) of the 49 titles. In contrast, only 14 (30%) of the 47 Mathematics sessions included Common Core State Standards (CCSS) in the title. Mathematics topics also revealed interest in pedagogical approaches such as math and number talks (4), Cognitively Guided Instruction (3), hands-on mathematics (2) and Project Based Learning (2).

In the area of Special Education, the highest number of sessions that specified a focus area were teacher collaboration and co-teaching (8), six of which focused on collaboration between general education and special education teachers. Eight sessions focused on inclusion and another seven on specific content areas in the special education classroom, including mathematics, STEM/STEAM, and language arts. Topics also reveal interest in meeting individual student needs, including sessions on Individualized Education Plans (IEPs) (4), the identification process (3), and differentiation/modification of instruction (3).

The researchers also analyzed 751 sessions that did not include a specific content area. There were titles that addressed classroom management (83), including management for creating positive classrooms and strategies for responding to behaviors. Interest in supporting positive learning environments was reflected in an additional 64 titles that included student motivation and/or engagement, with a focus on engaging all learners and supporting a growth mindset (17) and student leadership (3).

Relationships also appeared in titles. The 22 sessions that addressed school communities included leadership by administrators (5) and teachers (7) and communication and collaboration among school personnel (6). Relationships among schools, families, and communities (41) featured parent and family involvement (29) and homework (11).

Sixty-seven titles indicated that participants were also interested in just, equitable, and inclusive education. Topics including bilingual education/dual immersion (15), social justice (14) and restorative justice/practices (12), multicultural and ethnic studies (10), culturally responsive/relevant teaching (7), gender and LGBTQ issues (6), and bullying (3).

Commitment to meeting the needs of students appeared in 31 titles, including the motivation and learning for English language learners (13), learners in Gifted and Talented Education (GATE) (6), and students identified as at risk (12). In addition, 31 titles dealt with practices that support the differentiated instruction (17) and

responsiveness to individual student needs (14) through Response to Intervention, Universal Design for Learning, and Positive Behavioral Support.

A large number (80) of session titles addressed the teaching profession and teacher professional development or learning. Eighteen of these focused on new teachers, with references to support, advice, and invitations to network. Sessions also addressed teachers across the career span. Fourteen titles mentioned coaching and/or mentoring through models such as Professional Learning Communities (5), Edcamp (1), and Personal Learning Networks (7). Additional titles included career advancement (e.g., two sessions on National Board Certification), self-care and motivation (17), and securing resources and grant writing (12).

Additional titles revealed interest in Project Based Learning (40), assessment (42), social-emotional learning (20), standards that are not subject-specific (19) (e.g., implementing Common Core in middle school), and flipped classrooms/blended learning (13).

What experiences and ideas did teachers discuss?

Methodology. Beyond session titles, researchers were interested in the discussions captured in the session notes to identify topics and discussions. A team of three researchers read and coded all session notes. The team used a random sample of data and a multi-stage process to develop and refine codes applied to all session notes. The team's codes (below) were the same ones used in 2015, thus easing comparative analysis. The research team coded a set of 812 session notes for the 2016 Summit. The other 498 sessions either did not produce notes or were created but subsequently not attended. Discussed in order of most to least frequent, the findings of the coding process is found in the following sections.

Big Idea (Primary) code = Code

Secondary code = Code

1. **Classroom = Class**
   - *Management = Class M*
   - *Pedagogy = Class P*
2. **Relationships = Rel**
   - *Student-Student = Rel SS*
   - *Teacher-Student = Rel TS*
   - *Teacher-Teacher = Rel TT*
   - *School-Community = Rel SC*
   - *Within the School (overall school environment) = Rel WS*
   - *Collaboration = Collab*
3. **Standards = Standards**
4. **Technology Integration = Tech**
5. **Whole School Practices (policies, initiatives, systems, etc.) = WSP**
6. **Other:** *Session that did not fit the above categories*

Session notes analysis:

Classroom. Conversations about classroom practices were paramount in Summit sessions. On the first level of coding and out of the total set of notes the research team coded (n= 812), 55% or 443 received the primary code of Classroom. On a secondary level of coding for these 443 session notes, 361 documents involved pedagogy (Class P) as the dominant topic. The other 82 sessions about classrooms emphasized classroom management (Class M).

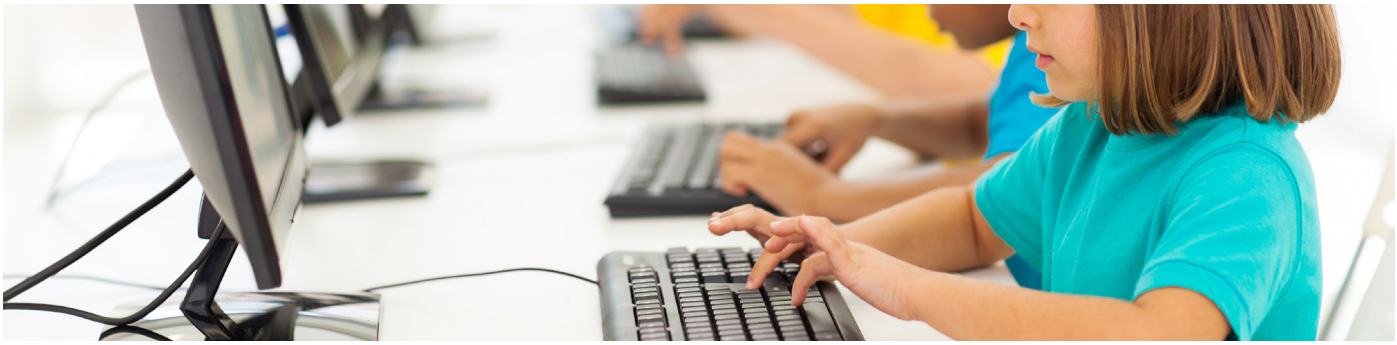
At times researchers identified related topics in addition to the secondary code. For example, of the 361 discussions coded as classroom pedagogy, 33 related additionally in some way to technology, 13 to whole school practices, 11 to standards, and seven to types of classroom relationships. Of the 82 sessions coded as classroom management, six related to instruction, six to technology, six to relationships (teacher-student), five to whole school practices, and two to standards. Beyond the proportions, a synthesis of the data exposes the following:

- Primary Code Classroom, Secondary Code Pedagogy: Teachers discussed myriad issues related to teaching and learning. Conversations often focused on innovative instructional practices, including flexible classrooms, creative teaching, differentiated instruction, flipped classrooms, STEAM/STEM teaching, active learning, fostering growth mindset, implementing group work effectively, project-based learning, student-centered learning, field trips, makerspaces, and thinking maps. Teachers also discussed learning strategies, techniques, best practices, and tools related to innovation in teaching. Additionally, teachers raised issues related to support for English language learners and diversity, including helping students transition to post-secondary schooling, addressing cultural diversity through their professional practice, developing empathy in students, teaching in dual-language programs, implementing service learning or GATE programs, including students with special needs, using restorative justice practices, creating safe spaces for LGTBQ students, and fostering global citizenship. Teachers also discussed aligning their curriculum to national/state standards and addressed Next Generation Science Standards and Common Core-Math.

- Primary Code Classroom, Secondary Code Classroom Management: These sessions were marked by conversations around first-week routines and ideas for managing the classroom, from seating to social media. Specifically noted were Positive Behavior Intervention and Supports (PBIS), cell phone use, middle school student needs, Response to Intervention (RTI), genius hour implementation, challenging students, multi-age classrooms, technology, and practicing culturally-responsive management.

In summary, notes coded primarily as Classroom revealed that teachers are concerned with serving their students and supporting their success. Teachers wish to solve problems via collaboration. They are interested in finding ways to address Common Core State Standards and Next Generation Science Standards. They are intent on supporting a diverse population of students by providing a wide array of instructional practices and opportunities for learning in

different ways. They want to make school relevant, and they are interested in novel, research-based methods for supporting learning in the classroom. Furthermore, there is an indication that teachers are interested in fostering stronger relationships with students so they can engage in interdisciplinary content. Teachers shared ideas for organizing the classroom to support innovation on various levels. The session notes revealed that teachers are using the Summit to network ideas and pool resources with teachers around the state.



Technology Integration. Instructional technology was central in the conversations teachers had during the 2016 Summit. The area of technology integration in teaching represents emerging changes in the profession as well as shifting terrain for many teachers. Seventeen percent (137) of the 812 sessions were coded primarily as technology related, and 41 received a secondary code for technology integration. The vast majority of these tied to the primary code of classroom pedagogy. It is not surprising that technology integration often emerged in conversations about pedagogical approaches, as many technology resources are most often placed in service of teaching strategies and methods. Many notes listed websites or apps, either with brief discussion notes or with no description of how each related to the session title. It was not clear if teachers discussed these resources. Often, researchers could not ascertain if the discussion went beyond a mention of them as useful. For example, in one session coded for technology and standards, there was a brief paragraph listing concerns about implementing the Common Core State Standards (CCSS) and Smarter Balanced Assessment Consortium (SBAC), then a list of two websites (tenmarks.com and Khan Academy.org) with no description provided. In one session titled "Teaching with Tech," two brief notes about the discussion were included, as well as a list of 10 resources with a limited description of each.

Researchers also examined additional secondary codes for the sessions where instructional technology was the main focus. Often these sessions listed various technology resources, links for Google Classroom and apps, digital portfolios, and blended learning. Sessions with sparse notes left researchers with questions about exactly what the teachers discussed, especially when the notes contained lists of resources, rather than details about how the resources were used. Nevertheless, the following sections examine the intersections.

In sessions where technology and classroom management were coded, attendees shared resources related to grouping students, how to avoid cell phone use/distractions during instruction, and classroom management in online classes. Lists of technology resources related to English/Language Arts instruction, English language learners, NGSS/STEM, flipped classrooms, digital literacy, differentiating instruction, Google Classroom, and appropriate use of social media.

One set of technology-related resources was regularly associated with classroom pedagogy. Websites and apps shared in the notes centered on project-based learning, digital portfolios, homework, differentiating instruction,

student collaboration, Google apps, flipped classrooms, and the content areas of Math teaching, writing, reading, science instruction, and STEM. For example, one set of session notes provided brief descriptions about how to use Google sites for portfolios, using QR codes for portfolio documents, setting up a class YouTube channel, and a couple of other ideas for creating digital portfolios.

Some attendees shared technology-related resources for classroom management, tools for managing teacher preparation time, and managing groups of students using technology. Recommendations for managing a class using technology included making sure students have their account information and know how to use it, teaching digital citizenship, proper screen usage, and keyboarding skills, among others. One session contained websites related to fundraising, and two provided resources for teachers using social media. Only two sessions coded for Technology Integration related to standards. They contained lists of resources for visual note taking, STEAM resources, charts, and for visual learners. Only two sessions coded for Technology Integration also received the Relationships code. One provided a list with a brief description of various electronic resources for keeping parents informed, such as the RemindMe app, Class Dojo, and Seesaw.me. The other session listed educators to follow on Twitter and seven websites not clearly related to the session topic. There was no description of any of these resources. In the Whole School Practices category, the two tech-related sessions had lists of websites and information about setting up classroom Facebook pages.

Relationships. Ultimately, education is a human endeavor, and the 2016 Better Together: California Teachers Summit revealed a strong interest in discussing how people relate to each other. Teachers were interested in discussing the human systems of schools and the way these related to pedagogy as well as policy. Most sessions dealing with relationships involved adults and teachers in particular. Researchers assigned the primary code of Relationships to 70 session notes (9%), including those that dealt with collaboration of various types. Researchers used six secondary codes to characterize the relationships: collaboration (Collab), teacher-student (TS), teacher-teacher (TT), school-community (SC), student-student (SS), and the whole school environment (WS). These are discussed below in order of frequency in the session notes, highest to lowest.

- Teacher-Student: Twenty-one of the 70 sessions centered on the relationship between teachers and their students and received the TS secondary code. The most frequent topic was how to help students build their socioemotional learning (SEL). Sessions on intrinsic motivation, student resilience, and student-directed learning are closely related to SEL. Other topics in this area involved assisting vulnerable student populations (e.g. LGBT, foster, or unhoused students). Teachers discussed ways to build safe classroom environments for marginalized students and often discussed making authentic commitments to culturally responsive pedagogy and social justice philosophies of teaching. Noteworthy in the above discussions was the frequency with which teachers discussed the importance of starting the year well

in teacher-student relationships. Many sessions discussed approaches to the first days of the school year in terms of classroom relationships.

- Teacher-Teacher: One fifth of the sessions receiving the Relationship primary code involved relationships between teachers. The most frequent discussions in this category involved advice and support for all teachers to avoid burnout, especially in their first year. As in national conversations, most sessions under this code discussed teacher morale and turnover. Notes also revealed discussions about co-teaching and leadership development.
- Whole School Environment: Sessions in this area focused on relationships among members of the entire school community and ways everyone can contribute to a positive school climate and on school-wide initiatives to raise awareness of LGBT issues and valuing and integrating students with special needs. Some sessions addressed academic integrity, communication lines between administrators and parents, and student groupings.
- School-Community: Ten sessions received the secondary code of SC. The code could easily be changed to a parent involvement code because eight involved discussions about how schools can connect with parents. Teachers explored how to partner with parents more effectively and open better lines of communication. The other two sessions coded SC dealt with school-wide events open to the community and partnerships between schools and local universities.
- Collaboration: This code is similar to the TT code, but researchers applied it to cover general collaborative arrangements at school sites, not exclusively between teachers. These sessions explored co-teaching models, interdisciplinary teaching, how specialists can partner with classroom teachers, and special education. Additionally, session notes documented conversations about collaboration and networking that is beneficial with colleagues across a district or in other schools. Teachers praised the Summit as an occasion for this type of collaboration/networking. Lastly, a few sessions receiving this secondary code involved collaboration through social media and other technology platforms.
- Student-Student: Four sessions covered the relationship between students. These sessions examined social-emotional learning and curriculum to aid students in forming positive relationships amongst themselves and resolving conflicts with greater dexterity. One session centered on how technology might affect peer relationships.

Whole School Practices. Of the 812 coded sessions, 57 (7%) related to school-wide policies, practices, and initiatives. A wide range of topics fell under this code, and researchers placed it on sessions looking broadly at school policies. Because almost all sessions featured important discussions of school-wide concerns and initiatives, we have listed WSP-coded session topics below. In general, researchers noted that teachers exchanged information

on ways the entire school can embark on initiatives, enact policy, or make processes or integrations more efficient. They also discussed how teachers could play a leadership role in these areas.

- Dual-language schools
- STEM campuses
- School administration
- Discipline policy
- Visual and performing arts
- Alternative education
- Early childhood education
- Language teaching
- Bilingual education
- Dual immersion
- Ethnic studies
- Genius hours
- Social media policies
- Social justice
- Bell schedule and school calendar
- Professional development
- Field trips
- Communication systems
- Learning management systems
- Technology hardware

Standards. At the 2016 Summit, 28 of 812 conversations (3.4%) recorded in session notes received the Standards primary code. Teachers exchanged tools, ideas, and strategies around teaching, technological support, and policies related to standards. The three main topics discussed were the Next Generation Science Standards, the Common Core State Standards (CCSS), and standards related to STEAM curricula. One emphasis was effective implementation of math and science education. Other discussions focused on the new social science frameworks in the state, standardized testing, and standards-based grading.

Other. Researchers found 38 session notes that could not be easily characterized by the primary codes. These session notes speak to the diversity of concerns teachers discussed at the Summit. For example, researchers found session conversations on teacher education programs, finding motivation to teach, the value of homework, funding and grants for teachers, partnerships with local colleges and non-profit organizations, the state teacher shortage, defining 21st-century skills, teaching global competencies, and emerging behavior standards.

What resources did teachers mention?

All sessions that posted notes were examined for the inclusion of any resources that might be useful to share with teachers. A total of 38 Summit sites were represented in the resulting data set with 3,499 resources listed. Across the data from the 38 sites examined, the number of sessions represented ranged from 11 to 556, and the total number of resources identified from participants ranged from 2 to 526.

While some notes simply listed resources, others also included a discussion. In some cases there was a list of a variety of resources not tied to any specific part of the discussion. As noted earlier, while it was often unclear whether teachers spent time actively discussing the resources, they were still included in the analysis. Each resource was pulled out of the notes and listed alongside a code for the session location and number. The resource was checked for accuracy in spelling and title. There were 490 sessions that did not have notes; notes for 22 others were not accessible at the time of evaluation. A total of 187 sessions included notes but provided no identifiable resources. For the 20 resources mentioned most frequently, researchers reported the number of sessions discussing the resource, the number of unique sites where the resource was identified, the type of resource, and its cost (Figure 2). Detailed results of this data analysis follow.

Across the 38 sites that included sessions with notes, teachers identified a total of 3,499 resources. Researchers found a range of resource sharing: Some session notes included no resources whereas one session included more than 27. A smaller number of resources were specific to a district and required district access or were specific to a region or a city. A few resources could not be verified. Some resources were free, others were free but charged for access to enhanced features, and some required payment. The type of resources varied greatly and included books, articles, presentations, web-based tools, applications, blogs, and websites. For the 2016 Summit, the top 20 resources included those listed across 66 sessions at 23 sites to a resource listed at 16 sessions across 14 sites.

Resource	Sessions	Sites	Type	Cost
ClassDojo	66	23	App	Free
Kahoot	56	26	App	Free
Google Classroom	55	21	Website	Free
Pinterest	42	16	Website/App	Free
YouTube	41	18	Website/App	Free
Twitter	38	16	Website/App	Free

Resource	Sessions	Sites	Type	Cost
NewsELA	38	19	Website	Free
Remind	34	17	App	Free
SeeSaw	32	13	App	Free
Khan Academy	28	17	Website	Free
Edmodo	27	14	Website/App	Free
Teachers Pay Teachers	26	18	Website	Free for "Basic Member"
GoNoodle	23	13	Website/App	Free for "Basic Member"
Google Docs	21	13	Website/App	Free
Quizlet	21	13	Website/App	Free
Code	21	12	Website	Free
Edutopia	19	8	Website	Free
Buck Institute for Education	17	13	Website	Free
Donor's Choose	17	13	Website	Free
Flubaroo	16	14	Website/App	Free

Resources included those that teachers could use for professional development, with colleagues, with parents, with students, as well as ones that could be used by parents, by students, and embedded within lessons and units. Some web-based tools were for general use (Pinterest, Skype, or Google, YouTube, etc.), while others were for very specific

use and were tied to content or pedagogy such as teaching engineering or mathematics. Resources mentioned also included those that might be used by an individual, a classroom, a school or even an entire district. Others included websites where teachers could access lesson plans, videos, or guidance for classroom activities.

How does the data from the 2015 and 2016 Summits compare?

Comparing Session Topics. In 2016 there were 1,310 session titles listed, a 72% increase from the 2015 conference (760 titled sessions). There was variation in the percentage of participants interested in discussions that focused on an age range. The most notable increase was in topics that emphasized elementary education. In 2015, 32% of topics addressed elementary education, compared to 53% in 2016. In contrast, the number of topics that identified as preschool or early childhood declined from 14% in 2015 to just 4% in 2016. One explanation could be that sessions classified as Transitional Kindergarten/Kindergarten, an age range typically housed in elementary schools, overlap with age range that address preschool or early childhood. Of note, In 2015 no sessions listed TK as a topic for discussion.

In addition, researchers found variation in the topics that were identified for discussion. The percentage of teachers who wanted to discuss special education remained relatively stable, with 8% identifying this topic in 2015 and 10% in 2016. But English/Language Arts topics dropped from 26% to 15%. Participants who wanted to discuss Math also declined, from 23% to 8%. In 2015, 22% identified science topics for discussion, whereas 9% did in 2016. However, when science, STEAM and STEM are combined, they total 19%.

Comparing Session Notes. Researchers coded more than twice as many sessions from the 2016 Summit (812 compared to 354). The most salient findings of a comparative analysis of the data sets are discussed in the following section.

Once again, the primary code of Classroom, with a secondary code of Pedagogy, was the most frequent. Issues of instruction, teaching, and learning were at the forefront of the conversations. The specific areas of pedagogy discussed in 2016 differed from those in 2015. In particular, 2016 featured more discussion of teaching innovation, including flipped classrooms, flexible classrooms, differentiated instruction, project-based learning, and others. While a few groups discussed standards-based instruction in 2016, it appeared more frequently in 2015 discussions. Technology, within the realm of classroom pedagogy, was also more prominent in the 2015 Summit data. In contrast, the 2016 Summit's classroom pedagogy conversations focused more on supporting learning for all students, including ELLs, LGBTQ students, GATE, and SPED students. Interest in classroom management stayed about the same, and many of the same issues arose, including first-week routines and tips for positive reinforcement and behavior intervention.

The 2016 data set showed an increase in conversation about technology integration. The sessions coded primarily as Technology Integration rose from 97 to 137. Moreover, sessions that received the Technology Integration code in addition to another primary code rose from 38 to 41. The specific topics were similar to those at the first two Summits (e.g., social media, Google classroom tools, project-based learning websites, education apps). One area that did decrease was technology integration tied to Standards, from 11 sessions to two. There was a remarkable amount of technology resource sharing in 2016, and the session notes have extensive resource lists. This increase

shows that teachers continue to have a deep interest in finding technology tools to support their pedagogical and curricular activities.

The number of sessions on stakeholder relationships increased from 42 to 70, but that represented a decrease from 12% to 8%. Sessions centered on the relationship between teachers and their students decreased from 33% to 30%, while all other areas increased. In examining topics discussed, researchers noted a marked increase in discussions around responding to classroom diversity, equity, and social justice issues. From ELLs to LGBT students to students with special needs, underserved populations were increasingly in the foreground of teacher conversations at the 2016 Summit. The secondary code Whole School relationships (WS) increased the most. Again, teachers raised issues of fostering positive relationships across the school site.

A noteworthy increase in session note foci involved the Whole School Practices Code (WSP). Sessions discussing policies, initiatives, and whole school practices increased from 19 to 57 in 2016 (5% to 7%). In contrast, 36 of 354 sessions were coded with Standards in 2015, but only 28 of this year's 812 were, making it the least-discussed of the primary codes. That was a drop from 10% to 3.4%.

Comparing Resources. In 2016 a total of 38 host sites were represented in the final data set analyzed for resources, up from 25 sites in 2015. Far fewer sessions lacked notes, and most sessions that posted notes included a larger number of resources. In fact, the total number of resources shared by participants more than doubled. Kahoot! was again the resource that appeared at the most sites. However, the resource Class Dojo appeared most frequently. The 2016 resources were primarily web- or app-based and included items that were not in the top tools for 2015 attendees.

Conclusion

The notes taken during the Edcamp sessions contain valuable insights from a variety of educators, including teachers' increased interest in teaching innovations and integrating technology into the classroom. Through this research process, we are again reminded that educators are deeply collaborative and are willing to share their best practices and insights to benefit other teachers, parents, and students. We hope this report will help others seeking to support the professional learning of California teachers.

Important findings from the comparative analyses from 2015 to 2016 include an increased interest among teachers in innovating teaching practices to support all students. Teachers appear to be more interested in making school relevant for students, as well as in finding ways to better integrate technology and relationships into the teaching practice.

Armed with these findings, the Better Together partners are eager to start analyzing data from the 2017 Summit that focused on the theme "Now More Than Ever," which reflects the importance of bringing teachers together to listen and learn from one another. We also look forward to our fourth year of planning and hosting the Summit in 2018, that will center on the theme "It's Personal: Meeting the Needs of All Students."