



## Unconference professional development: Edcamp participant perceptions and motivations for attendance

Jeffrey Paul Carpenter

To cite this article: Jeffrey Paul Carpenter (2015): Unconference professional development: Edcamp participant perceptions and motivations for attendance, Professional Development in Education, DOI: [10.1080/19415257.2015.1036303](https://doi.org/10.1080/19415257.2015.1036303)

To link to this article: <http://dx.doi.org/10.1080/19415257.2015.1036303>



© 2015 The Author(s). Published by Taylor & Francis



Published online: 09 Jun 2015.



Submit your article to this journal [↗](#)



Article views: 870



View related articles [↗](#)



View Crossmark data [↗](#)

## Unconference professional development: Edcamp participant perceptions and motivations for attendance

Jeffrey Paul Carpenter\* 

*Education Department, Elon University, Campus Box 2105, Elon, NC 27244, USA*

*(Received 18 August 2014; accepted 23 March 2015)*

‘Unconferences’ are a non-traditional form of professional activity defined by the absence of many conventional conference structures. One example of the unconference model is the ‘Edcamp,’ a voluntary, participant-driven form of grassroots educator professional learning. More than 600 of these events have been held worldwide since the first in 2010. This exploratory study situates Edcamps in relationship to the literature on educator professional development and teacher collaboration, and reports on data gathered from 95 participants in an Edcamp in the United States. Respondents indicated diverse motivations for their Edcamp participation, including colleagues’ recommendations, anticipated learning and the desire to network and collaborate. Respondents generally rated their Edcamp experiences highly, and overwhelmingly reported intentions to attend future Edcamps. The positive environment, participant autonomy and integration of technology were highlighted. Most participants, however, also identified ways in which their experiences could have been improved. The nature and topics of discussion, as well as challenges associated with Edcamp novices and technology, presented barriers to full participation. Implications of this research for educators, researchers and educational institutions are discussed.

**Keywords:** professional learning; teacher collaboration; teacher learning; teacher community; teacher autonomy

### Introduction

‘Unconferences’ are voluntary, informal learning experiences that reject traditional conference structures such as a predetermined slate of speakers and sessions (Boule 2011). In 2010, a group of educators in the United States who had participated in a technology-focused unconference event subsequently organized the first Edcamp (Demski 2012). Hundreds of Edcamps have occurred in the intervening years. These experiences feature educators taking part in discussion-based sessions that are determined on the morning of the event. Edcamps typically exist outside school districts’ formal professional development (PD) structures. Many educators beyond those who physically attend Edcamps have been exposed to the model by participants’ active use of social media during events (Miles 2014). There is, however, almost no published, peer-reviewed research on Edcamps.

---

\*Email: [jcarpenter13@elon.edu](mailto:jcarpenter13@elon.edu)

## Background

Edcamps and other unconferences are based in part on the principles of ‘Open Space Technology’ (Owen 2008), a strategy for organizing meetings that has been used for more than 20 years in a variety of contexts. Open Space Technology emphasizes the ability of groups with a shared focus and an impetus for action to self-organize, collaborate and solve problems related to complex issues. Advance agendas, plans and materials are considered potentially counterproductive, as they may limit the engagement and collaboration of participants. The ‘law of two feet’ is also a key feature of Open Space Technology (Owen 2008, p. 95); this principle encourages participants to find sessions that meet their needs, even if it means walking out of an ongoing discussion. A number of other unconference movements and events applied such Open Space Technology principles before Edcamps, including the technology-focused ‘Barcamp’ and ‘THATcamp,’ which addresses the humanities and technology. The informal professional learning events known as ‘Teachmeets,’ which originated in the United Kingdom, also share commonalities with the unconference approach.

According to the Edcamp Foundation, a non-profit organization created by several of the organizers of the first Edcamp event, ‘Edcamp strives to bring teachers together to talk about the things that matter most to them: their interests, passions, and questions’ (n.d., para. 3). Events are free and typically open to anyone interested in attending. Edcamps usually occur on Saturdays, although weekday-evening events are also common in Sweden according to S. Järgerstedt (personal communication, 30 November 2014). Although some camps secure sponsors to provide food and/or door prizes, there is less of a vendor presence than at many traditional conferences. Any group or organization can host an Edcamp. The topics to be addressed in breakout sessions are determined on the day of the event during an initial phase of brainstorming and negotiation. Sessions are meant to be discussion based or hands on, and there is an expectation that attendees will ‘work together to build understanding by sharing their own knowledge and questions’ (Edcamp Foundation n.d., para. 3). Rather than featuring a single expert talking at a largely passive audience, sessions are meant to build upon the collective intelligence of those in attendance.

Helped by social media buzz about this approach to PD (Demski 2012), the popularity of Edcamps has increased during the last four years (Figure 1). Although

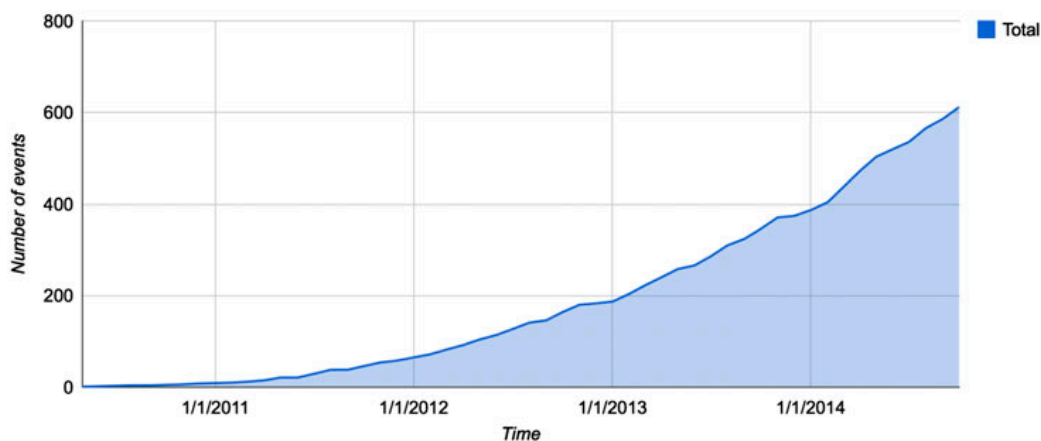


Figure 1. Number of Edcamps across time.

Table 1. Edcamp locations.

Location	Number of Edcamps
USA	417
Canada	53
Sweden	31
Denmark	5
Virtual Edcamps	4
Belgium, China, Indonesia, the Netherlands	3
Chile, United Arab Emirates	2
Australia, Brazil, India, Japan, New Zealand, Ukraine, Venezuela, Vietnam, Zambia	1

Note: Based on events listed on the Edcamp Wiki (<http://edcamp.wikispaces.com/>) as of 12 August 2014.

the majority of Edcamps have occurred in the United States, the number of events held in both Canada and Sweden has reached double digits. Seven other countries have been host to multiple events, and Edcamps have occurred in at least 18 countries in total (Table 1). There have also been a number of entirely virtual Edcamps, including Edcamp Home and Edcamp Online, which have relied upon technologies such as video-conferencing tools, Twitter and collaborative Google documents. While most Edcamps have been open to any education topics the participants decided to address, some events have been themed or had a particular emphasis. For example, different camps have focused on arts integration, English-language learners, literacy, mathematics, Science Technology Engineering Arts Mathematics (STEAM) and struggling learners. Some formal educational institutions have begun to dabble in Edcamp or Edcamp-like events as well, with schools and school districts hosting Edcamps for their employees, including the City of Stockholm's Department of Education. An Edcamp wiki provides information about upcoming events as well as resources for prospective organizers and participants.

### Literature review

While research on Edcamps is in its infancy, the Edcamp phenomenon can be situated in relationship to the broader findings of research on teacher PD and collaboration.

### Professional development

Many teachers, scholars and policy-makers consider PD to be pivotal to the enhancement of teaching and learning (Stigler and Hiebert 1999, Guskey 2009, Mourshed *et al.* 2010, Opfer and Pedder 2011). As a result of the widespread belief in PD's importance, there has been a general increase in the quantity being provided to teachers in recent decades (Lawless and Pellegrino 2007). Although research suggests that high-quality PD can result in improvements to instructional practices (Garet *et al.* 2001, Van den Bergh *et al.* 2014), teachers and researchers often criticize traditional PD approaches (Smylie 1989, Opfer and Pedder 2011) and many educators lack access to sufficient PD (Wei *et al.* 2009). For example, the majority of respondents in a 23-country international survey of 70,000 educators reported wanting more PD than they received (OECD 2009).

In the traditional ‘training’ model of PD, teachers receive short-term instruction in skills external experts have deemed sound (Kennedy 2005). Such PD generally aims to transmit knowledge to teachers, and assumes that new practices can easily replace or be integrated into existing practices. This type of PD has been criticized as chronically lacking in time, active learning, perceived relevance and integration within school culture (Hawley and Valli 2007). Traditional approaches have often been disconnected from the contexts of participants’ ongoing work in their schools, and fail to recognize how teacher learning is embedded in existing practices and working conditions (Borko 2004, Timperley and Alton-Lee 2008). These various critiques in part explain interest in new PD models such as Edcamps.

It is commonly asserted that PD should abandon training methods to instead include active learning and become collaborative, long term, content focused, linked to curriculum and grounded in concrete tasks of teaching and assessment (for example, Ingvarson *et al.* 2005, Desimone 2009, Opfer and Pedder 2011). The collective participation of teachers from a team or school is also considered preferable (Garet *et al.* 2001). Because teaching and learning are influenced by various contextual factors, it is argued that PD activities should build on teachers’ knowledge, beliefs, perceived needs and existing practices (Opfer and Pedder 2011, Moon *et al.* 2014). PD approaches that feature collaborative teacher inquiry and provide teachers with autonomy and agency, such as Lesson Study (Stigler and Hiebert 1999), have also been praised for their transformative potential (Kennedy 2014).

Comparing the Edcamp model with the reported features of effective PD yields mixed results; Edcamps appear to incorporate elements of both conventional approaches and newer visions of PD. For example, the short-term nature of the Edcamp experience and the potential disconnect from participants’ ongoing work in their schools hark back to traditional PD. While Edcamps seem to feature the active learning, autonomy and collaboration prized in many new modes of PD, they do not appear to include mechanisms that ensure a focus on content and/or on concrete tasks of teaching and assessment, as recommended by prior research (Garet *et al.* 2001).

### ***Teacher collaboration***

Edcamps are meant to feature a great deal of teacher collaboration. In many countries, however, teaching has historically been characterized by isolation (Lortie 1975). Isolated teachers are cut off from the collective knowledge and wisdom possessed by the faculties of their schools, and they rarely receive substantive feedback on their teaching (Stigler and Hiebert 1999). Teacher collaboration is thus considered by many to be a desirable goal, and limited evidence suggests that students also benefit when teachers collaborate. For example, Goddard and colleagues (2007) found that fourth-grade students performed better on average in mathematics and reading assessments at schools that were found to have higher levels of teacher collaboration.

Although Edcamps’ collaborative nature could thus be a potential strength, collaboration can present challenges. Little (2003, p. 913) identified an ‘optimistic premise’ in much discussion of teacher collaboration, and suggested that research which could support such optimism did not exist. The pitfalls of group dynamics can thwart well-intentioned efforts at collaboration (Grossman *et al.* 2001, Gunn and King 2003, Nelson and Slavit 2007). For example, Bezzina (2006) found that

although the teachers in his study in Malta valued collaboration, they struggled to understand colleagues' perspectives and their work stalled when consensus could not be reached on thorny issues. It seems, then, that despite enticing visions of the salutary effects of teamwork, arranging effective teacher collaboration is no simple matter. The degree to which Edcamps take advantage of the opportunities and mitigate the challenges associated with collaboration will probably be important to the outcomes of these events.

### ***New modes of voluntary professional development and educator collaboration***

Research on PD and teacher collaboration to date has often focused on formal, planned PD programs and the collaboration of educators from the same schools or districts. In many cases, licensure requirements, school policies and/or financial incentives compel teachers to take part in PD and collaboration. But Edcamps have emerged during a time when educators in various parts of the world use technologies such as social networking sites to voluntarily interact with a wider variety of their colleagues (Seo 2014, Wesely 2013, Carpenter and Krutka 2014a, 2014b). By eliminating many spatial and temporal restraints on collaboration, these tools provide educators with various avenues to engage with informal professional communities and take greater charge over their own professional learning (Hur and Brush 2009, Ferriter and Provenzano 2013). The 'participatory cultures' (Jenkins *et al.* 2009) and 'affinity spaces' (Gee 2004) facilitated by new technologies allow far-flung educators with similar interests to share with and learn from each other. The experiences of educators who voluntarily participate in Edcamps may in some ways have more in common with such participant-driven online activity than with formal PD. For example, although prior research suggests that establishing a sense of purpose and defining learning objectives are important to facilitating participant engagement in PD (Timperley and Alton-Lee 2008, Lauer *et al.* 2014), this may be less of an issue with educators voluntarily participating in Edcamps. So although previous research on PD and teacher collaboration can inform thinking about the Edcamp model, Edcamps are a new phenomenon that may differ in important ways from other PD approaches.

### ***Edcamps***

Although various blog posts (for example, Sheffer 2013) and practitioner-oriented publications (for example, Swanson 2014) provide a description of and anecdotal evidence about Edcamps, there is very limited formal research on the topic. No articles on Edcamps have yet been published in peer-reviewed journals. At least three Edcamp-related studies, however, have been conducted prior to this research. Swanson and Leanness (2012) based their white paper for the Edcamp Foundation on qualitative analysis of 30 blog posts by Edcamp participants. The authors determined that the posts described Edcamp experiences that aligned with four tenets of effective PD identified by Bransford and colleagues (1999). A conference paper by Wake and Mills (2014) described the topics addressed in one Edcamp event, as well as the results of a survey of participants ( $N = 42$ ) about perceptions of their Edcamp experiences and other PD activities. The authors reported that one-half of the sessions were related to technology, and that survey respondents indicated positive Edcamp experiences. Similarly, Miles (2014) reported in her dissertation that the

Edcamp participants she studied considered these events to be a useful mode of PD. However, the limited nature of that research means there is a need for further scholarship on this mode of professional learning. This study adds to the existing research by exploring participants' motivations for attending an Edcamp event and by gathering data regarding perceptions of both strengths and weaknesses of Edcamp experiences.

### Research questions

Given the paucity of research on Edcamps, this study seeks to contribute to a fuller understanding of the challenges and opportunities associated with this approach to PD. The research questions examined were as follows:

- (1) RQ1. What reasons do participants give for attending Edcamps?
- (2) RQ2. What were participants' perceptions of their Edcamp experiences?

### An Edcamp event

One-hundred and eighteen educators participated in an Edcamp in a southern US state in the spring of 2014. The camp was organized by a volunteer group of seven educators that included teachers and school administrators from three different public school districts. The organizers advertised the event through personal networks, social media and announcements in newsletters published by local school districts and educational organizations. Educators from at least 20 different school districts participated, as well as individuals from charter schools and institutions of higher education. Participants were given a certificate of completion after the event in case they wanted to try to have their Edcamp activity formally recognized by their school or district. The free event occurred on a Saturday and was hosted at a university campus. It lasted approximately six hours and featured an opening large-group session, three time slots for breakout sessions and a final large-group session (Table 2). Breakfast and lunch were provided at no cost to participants thanks to donations.

During the opening session, the organizers first briefly explained Edcamp norms and logistics. They then facilitated the discussion and selection of breakout session ideas. Session ideas were suggested by participants either verbally or using a digital chat space. The eventual list of 21 breakout session topics ranged from standards-based grading to gamification, with 11 topics being related to technology (Table 3). Organizers assigned the topics to different classrooms and posted the schedule for all to see on the event website. Breakout sessions varied in nature, with some being more clearly led or facilitated by particular individuals, while others were more

Table 2. Edcamp schedule.

Time	Activity
8:30–9:00 am	Registration and breakfast
9:00–9:40 am	Large group session; discussing Edcamp; building day's schedule
9:45–10:45 am	First breakout sessions
10:45–11:45 am	Second breakout sessions
11:45 am–12:45 pm	Lunch
12:45–1:45 pm	Third breakout sessions
1:45–2:45 pm	Large group session; Smackdown; door prizes

Table 3. Edcamp breakout session topics.

	Breakout Session 1	Breakout Session 2	Breakout Session 3
1	Blended and online learning	SAMR model and teaching above the line	Common Core state standards
2	Standards-based grading and learning	Literacy and writing across the curriculum	Learning management systems
3	Twitter 101	Digital leadership	To flip or not to flip
4	Gamification	Differentiation	Genius hour
5	Things that suck and don't in tech integration	Bring your own device (BYOD)	Project versus problem-based learning
6	Role of the professional	Empowering teachers	Tech innovations
7	Make anything	Twitter chats	The 4 Cs – collaboration, creativity, critical thinking, communication

Note: SAMR = Substitution Augmentation Modification Redefinition.

conversational in nature. The closing large-group session included door prizes and a ‘Smackdown,’ a type of lightning sharing during which any attendee had 90 seconds to introduce a favorite new technology resource. Seventeen participants presented during the Smackdown, and the resources they shared were gathered in a document made available to all participants. The Edcamp also featured a robust Twitter backchannel (Atkinson 2009), with more than 4000 tweets sent that included the event hashtag. More than 70 users sent tweets including the event hashtag, suggesting that more people than were physically present at the event were exposed to and participated in the exchange of ideas and conversation.

### Methods

I designed two brief surveys to collect primarily qualitative data about educators’ experiences with and motivations for participating in Edcamps (see Appendices 1 and 2). The surveys included open-ended prompts, close-ended questions and one Likert-scale item. The existing literature on Edcamps and my own Edcamp experiences informed the initial survey drafts. I shared these drafts with three educators familiar with the Edcamp model and made minor revisions based on their feedback. The surveys each had three parts: an informed consent section, a demographic section and items eliciting Edcamp-related information.

### Data collection

Data were gathered from Edcamp participants via one online anonymous survey about motivations for Edcamp participation that was distributed prior to the event (Survey One) and a second post-event survey that addressed participant perceptions of Edcamp experiences (Survey Two). During the seven days leading up to the event, everyone registered for the Edcamp received three email invites to complete the first survey. During the seven days following the event, the registered individuals received another three email invitations to complete the second survey.

### Participants

Ninety-five participants responded to at least one of the surveys (81% response rate). Eighty-three respondents completed Survey One (70% response rate) and 53



Table 4. Respondents' experience working in education.

Experience	Survey One percentage	Survey Two percentage
Pre-service teacher	6	8
1–3 years	10	15
4–10 years	29	36
11–20 years	39	28
21–30 years	12	11
30+ years	4	2

Table 5. Respondents' current professional positions.

Current position	Survey One percentage	Survey Two percentage
PK–12 teacher	45	42
Instructional support (technologist, coach)	16	13
Teacher educator	8	11
Pre-service teacher	6	8
Administrator	8	6
Librarian/media specialist	5	3
Other	12	15

Table 6. Respondents' content areas.

Content areas	Survey One percentage	Survey Two percentage
Elementary content (all)	18	28
English	18	8
Mathematics	13	11
Social Studies	11	9
Technology	11	11
Science	11	9
Spanish	5	4
French	4	2
Latin	2	2
Special Education	2	4

Notes: Percentages do not equal 100 because respondents did not have to indicate a content area. One respondent identified with each of ESOL (English as a Second/Other Language), Media Studies, Literacy, Robotics and Army JROTC (Junior Reserve Officer Training Corps).

completed Survey Two (45% response rate). Forty-one participants completed both surveys (35% response rate). For both surveys, the sample of respondents was 23% male and 77% female. Attendees represented diverse levels of experience, positions in education and academic content areas (Tables 4, 5 and 6). Among the respondents, 81% indicated that they had not previously attended an Edcamp.

### **Data analysis**

Both sets of survey responses were read and re-read to identify patterns and themes, and to develop a set of codes. This resulted in 12 tentative codes related to Survey One and 20 codes related to Survey Two, with some overlap in codes. Each survey item response was then assigned a code or codes. Data receiving the same codes were sorted and compared both to refine the codes and to consider similarities and

differences in respondent comments. An impartial peer familiar with Edcamps audited the coded data (Lincoln and Guba 1985) and provided feedback on the codes. The codes were reconsidered (Charmaz 2006), resulting in a revised set of 15 codes for both surveys. The full corpus of data was re-read and coded again with the revised code set.

### **Limitations**

This research is limited by reliance upon self-report surveys and non-random sampling. The data came from participants in one Edcamp, and the results may have been influenced by idiosyncrasies of that single event. Furthermore, the Edcamp model is probably evolving with time as first-time organizers and participants learn from initial experiences and approach subsequent iterations differently. This research thus presents a temporal snapshot of educators' perceptions of one Edcamp. The participants who chose to respond to the two surveys may not have represented the full range of participant motivations and perceptions in this particular Edcamp, or in Edcamps in general. The respondents were all from the United States, where the history of PD and current education policies may influence Edcamp experiences in important ways. Educators in other countries may have significantly different Edcamp motivations and experiences.

It is important to bear in mind the limitations of this study's results in relation to other modes of PD. Participation in Edcamps is voluntary and caution is probably necessary when comparing and contrasting Edcamp experiences with required forms of PD. Individuals respond differently to the same professional opportunities (Harland and Kinder 2014), and educators who voluntarily attend PD on the weekend may not represent the teaching profession as a whole. Edcamps may attract educators who are more energetic, motivated and/or optimistic than average, and this could contribute in part to the popularity of these events among the participants. What appears to work in Edcamps may not therefore be easily transferrable to other forms of PD that are required.

### **Results**

#### ***RQ1. What reasons do participants give for attending Edcamps?***

Respondents indicated diverse motivations for their Edcamp participation, and 79% gave multiple reasons for attending. Several themes emerged from participants' explanations of why they had chosen to attend an Edcamp. Given the voluntary and grass-roots nature of Edcamps, it should perhaps not come as a surprise that the most common comments related to the importance of recommendations from other educators (Table 7). For example, an elementary school technology teacher wrote: 'I have friends who have attended Edcamps in the past and recommended it. I have read a lot of positive information about Edcamps on Twitter.' Recommendations came primarily from three sources: general colleague recommendations, colleagues who were also attending the same Edcamp and social media buzz. Respondents (27%) mentioned hearing positive comments about Edcamps from colleagues in their institution, district or professional association. A school administrator explained that 'I was told about it by some colleagues and thought it would be a great opportunity to learn from others.' Another 18% of responses referenced the actual

Table 7. Motivations for attending the Edcamp.

Code	Example	Percentage of responses
<b>Recommendation</b>	‘I have heard so many positive things about Edcamps.’	43
Colleague recommendation	‘The factor that influenced me the most was a co-worker’s opinion.’	27
Colleague attending	‘I convinced a friend to come along!’	18
Social media recommendation	‘People I follow on Twitter have mentioned it.’	11
<b>Learning</b>	‘I want to continue to learn and grow!’	33
New	‘I hope to not only learn new tools and ideas to use in my classroom but to grow my PLN as well!’	14
Classroom practices	‘I hope to have resources that I can use in my classroom.’	14
<b>General Edcamp interest</b>	‘I am intrigued by the format of Edcamp.’	28
<b>Interest in specific aspect of Edcamp</b>	‘An opportunity for personalized, relevant PD.’	22
Collaboration	‘Edcamp always offer valuable information and collaboration with peers.’	16
Discussion	‘I love the dialogue and sharing of the group.’	13
Autonomy	‘I like the idea of picking my own PD.’	11
<b>Networking</b>	‘When I attend conferences all I ever want to do is talk to the other teachers.’	20
<b>Location</b>	‘Date and location worked best for me, so I’m looking forward to learning!’	19
<b>Past experience</b>	‘It’s the best PD around.’	18

Note: PLN = Professional Learning Network.

attendance of colleagues at the same Edcamp as playing a role in the decision to participate.

Many educators now use social media for professional purposes (Carpenter and Krutka 2014a, 2014b), and positive information about Edcamps shared via such media influenced some attendees. For example, a respondent mentioned that ‘I have read a lot of positive information about Edcamps on Twitter.’ For some attendees, social media buzz and colleague attendance combined to influence them. An administrator wrote that she ‘saw a tweet about it [Edcamp] and I was intrigued. Made my decision to come after a group of teachers were going.’ It thus appears that both virtual recommendations and more traditional face-to-face relationships contributed to decisions to attend.

The second most common theme was the anticipated professional learning that would result from the event, mentioned by one-third of respondents. Representative comments included the following:

I am always looking for ways to learn and grow. (Librarian)

I want to soak up ideas! There is a lot of information out there, but I want to hear what people are doing – learn about new styles. (World Languages Educator)

In particular, 14% of respondents anticipated learning about ‘new’ information, resources, tools or ideas. Learning which related to classroom practices was also

mentioned in 14% of responses. A middle school Latin teacher commented: 'I am hoping to learn strategies to use in my classroom.'

Another common theme was general interest in or curiosity about the Edcamp model, which appeared in 28% of responses. For example, a high school mathematics teacher explained that 'A colleague described the Edcamp idea to me one day in the hallway and immediately I knew it was perfect for me.' In addition to such general comments about Edcamps, 22% of respondents mentioned specific elements of the model that influenced their decision to attend the event. The collaborative nature of Edcamps was the most commonly referenced aspect of the model, noted in 16% of responses. An elementary school teacher explained: 'I have chosen to attend Edcamp because I learn so much from peer collaboration, and this format seems very conducive to that.'

According to 13% of respondents, the quality of discussion they anticipated or hoped would occur at the Edcamp contributed to their decision to attend. One first-time attendee wrote that 'I am hoping to have meaningful discussion that will reenergize my instruction.' Several participants also alluded to how the Edcamp model provides autonomy to educators. Respondents were attracted by the 'teacher-led,' 'grassroots' and 'participant driven' nature of the event. For example, a special education teacher explained that 'Many workshops and conferences do not pertain to my teaching area, so I am excited to have more freedom to choose applicable sessions.'

Many respondents indicated that a motivating factor for their Edcamp participation was an interest in connecting and networking with other educators. In particular, several participants expressed a desire to connect with other educators from outside their schools, districts or existing professional networks. For some, this desire to make new connections appeared to be motivated by an interest in finding 'others who share similar interests and concerns.' For example, one art teacher wrote that he was hoping to meet 'other educators who are experimenting with the same educational technology as me.' A number of comments about networking also mentioned that the Edcamp would provide an opportunity to meet face-to-face with other educators they knew via social media. For example, one science teacher wrote: 'I know the people [virtually] and I want to collaborate with them in person.'

According to 19% of respondents, the proximity of the event to where they lived played a role in their decision to attend. Finally, 18% of respondents referenced prior Edcamp experiences in explaining their motivations for attendance. For example, a third-grade teacher wrote: 'I attended [an Edcamp] last fall and it was an amazing experience! Sharing with and learning from colleagues turned out to be one of the most powerful PD experiences in my 13+ years in education.' In sum, participants who were planning to attend the Edcamp reported multiple and diverse reasons for doing so.

### ***RQ2. What were participants' perceptions of their Edcamp experiences?***

The second survey gathered data regarding the participants' perceptions of their experiences at this particular Edcamp. Respondents were generally positive about the event. When asked to rate their overall Edcamp experience on a scale of one to five, with one representing 'poor' and five representing 'excellent,' 85% of respondents chose a 'four' or 'five' (Table 8). In addition, 91% of respondents indicated intentions to participate in future Edcamps.

Table 8. Overall rating of Edcamp experience.

Rating	Percentage of responses
5 – excellent	49
4	36
3	13
2	0
1 – poor	2

*Edcamp strengths*

In response to the prompt ‘In your opinion, what were the strengths of this Edcamp,’ all respondents identified positive aspects of their experience, with responses receiving from one to eight different positive codes. For example, a first-grade teacher explained that she ‘had a great time, came home with many new ideas, feeling recharged and ready to end the school year with great new approach,’ and a third-grade teacher commented that ‘This was a fantastic learning experience! I have so much to bring back to my classroom, school, and system.’ A high school French teacher wrote: ‘This was my first experience at an Edcamp and now I’m hooked! I can’t wait to attend another one.’ Three-quarters of respondents described multiple strengths of their experiences.

A number of themes emerged from participants’ narrative comments about the strengths of their Edcamp experiences. The most common theme, noted in 32% of responses, was the positive mood or emotional environment of the event and/or its participants (Table 9). Respondents described the ‘passion,’ ‘enthusiasm,’ ‘engagement,’ ‘energy’ and ‘excitement’ they witnessed during the event. For example, a male high school teacher asserted that ‘Participant engagement goes beyond anything seen at more traditional conferences,’ and a fifth-grade teacher commented that ‘The passion of the attendees was extremely noticeable.’ Many participating educators valued the autonomy they had as professional learners in the Edcamp model. A middle school science teacher described the event as ‘teacher centered PD – no one talking at us from the front.’ A pre-service teacher added: ‘The ability to create our own sessions and attend whatever concerned us was a major strength of Edcamp!’

Many respondents identified what they had learned as a strength. Several teachers mentioned being exposed to ‘new’ ideas, activities, tools, strategies and perspectives, and other respondents valued learning about ‘tried and true activities,’ ‘best practices’ and ‘what has succeeded in peers’ classrooms.’ A fifth-grade teacher commented that during the event he ‘had many a-ha moments that will definitely help in my instruction.’

Technology played an important role in many of the participants’ Edcamp experiences. For example, one teacher wrote: ‘Having so much connectedness via QR codes, Padlet, the Twitter hashtag, and the ability to link into the Google Docs for the sessions was phenomenal.’ During the event, there were backchannel activities (Atkinson 2009) occurring both on Twitter and via Google documents that had been set up to support collaborative note-taking. The use of technology specifically made sessions more ‘interactive’ according to three respondents. Another participant commented: ‘I loved the collaborative documents – they allowed me to contribute even if I didn’t feel like speaking up, and they’re going to be great resources for me as time goes by.’ In addition to how technology helped with the flow of information,

Table 9. Strengths of Edcamp experience.

Code	Example	Percentage of responses
Positive	'It was an amazingly positive atmosphere.'	32
Autonomy	'We had the freedom to move between sessions.'	32
Technology	'Having so much connectedness via technology was phenomenal.'	30
Discussion	'Great conversations with tremendous ideas were shared.'	30
Learning	'Gave me some new perspectives and <i>tons</i> of new ideas.'	28
Organization	'Everything seemed very well organized.'	21
Networking	'Awesome to meet Twitter buddies face to face.'	19
Food/prizes	'Providing breakfast <i>and</i> lunch was great!'	15

it also appeared to play a social role. The Edcamp drew participants from a variety of districts, many of whom had not met face-to-face prior to the day of the event, and social media supported connections and communication among this diverse group. For example, one respondent explained that 'All the backchannel chatting on Twitter made me feel even more connected to people that I may have only spoken to or heard from briefly.'

Many participants praised the quality of discussion they experienced. Sessions were described as 'authentic,' 'collaborative,' 'open' and 'practical.' An elementary school teacher valued that 'The conversation was led by the teachers. There were a lot of great ideas being thrown around. I enjoyed the atmosphere of collaboration.' Several participants highlighted the practicality of discussions. For example, one said: 'I really enjoyed the open dialogue ... conversations happened in a very practical way instead of big ideas floating around.' According to various respondents, discussions were in particular enriched by the variety of participants. Comments mentioned 'a huge diversity of backgrounds, experiences, settings, etc.,' and the presence of 'admin, pre-service teachers, new teachers, seasoned vets.' An instructional technologist wrote: 'There were such great conversations due to the diversity of the attendees. We had teachers/educators from all levels and backgrounds. And each was willing to contribute their ideas to the conversations.' Multiple respondents also noted the collaborative nature of discussions, whereas in the first survey respondents had tended to comment separately upon discussion and collaboration.

As indicated in respondent comments on their motivations for attending, interacting with other educators appeared to be an important element of Edcamps. According to 19% of respondents, networking with colleagues was a strength of their experience. For example, an elementary school technology teacher valued the opportunity 'to connect with educators that have such a diverse background and a common goal.' The chance to meet virtual colleagues in a face-to-face setting was also valued by a handful of respondents. Finally, the organization of the event and the free food and/or door prizes were mentioned in 21% and 15% of responses, respectively.

#### *Edcamp weaknesses*

Despite their many positive comments on their experiences, most of the participants did identify at least one weakness in their Edcamp experiences. Some respondents

(13%) did write ‘none’ or ‘not applicable’ when prompted regarding weaknesses. The most common theme in responses was perceived barriers to full participation in the event, which appeared in almost one-half of responses (Table 10). The barriers were of four types: the nature of discussion in sessions; challenges for first-time Edcamp participants; issues related to session topics; and technology obstacles.

According to 28% of respondents, the nature of discussion in the breakout sessions was at times a barrier to full participation. Because sessions lasted only 60 minutes, and some sessions attracted more than 20 participants, there were occasions when there were insufficient opportunities to speak for all attendees who wished to share. For example, a middle school teacher lamented that, ‘despite having a full room of educators, only a few participants seemed to have time to speak ... even though I found what those speakers were saying to be very valuable.’ In addition to time limitations, several respondents commented on occasions when other participants monopolized discussion. A science teacher explained that in some sessions there were, ‘Outspoken people who took over with their own soapbox. It damped the mood of the room and discouraged conversation.’

Participants noted that how breakout sessions were led, facilitated or directed was occasionally a barrier to full participation. One teacher wrote that ‘sometimes the sessions had too little structure and were not on topic, and sometimes they had too much when one person took over.’ An instructional coach similarly noted that it was ‘not very obvious who should or should not be leading sessions. The first session I attended there was no leader and I think that was best, the next two there were a few people who dominated the conversation.’ Other respondents felt that a lack of facilitation allowed some sessions to become overly negative. For example, an elementary school technology teacher explained that, ‘Instead of steering the conversation to channel the energy into a productive purpose, it just became an educational slam session.’

The majority of participants were Edcamp rookies, and 13% of the respondents felt that there were obstacles to participation associated with their lack of familiarity with the model. One participant suggested that an orientation session for first-timers would have helped him. Because many Edcamp veterans were eager to share their own ideas, it was intimidating for some novices to speak up. A teacher educator

Table 10. Weaknesses of Edcamp experience.

Code	Example	Percentage of responses
<b>Barriers to participation</b>	‘I think that everyone needed to be reminded of watching their “air time.”’	47
Nature of discussion	‘Some of the sessions weren’t as collaborative as I thought they would have been.’	28
First-time issues	‘I think since most of us were first timers we didn’t know what to do.’	13
Topic issues	‘There was no place to go if the participant didn’t feel like any of the sessions fit their needs.’	11
Tech issues	‘The Google docs set up for collaborative note taking didn’t work well on my iPad.’	5
<b>Schedule creation</b>	‘The opening session was overwhelming.’	34
<b>Logistics</b>	‘The layout of the space was a little confusing.’	25

commented, ‘I did get a sense that there were the “those who know” and “those who do not know.” And the “those who do not know” were kind of left to figure it out.’

Some participants (11%) made comments regarding how the session topics on offer did not always meet their needs. For example, an elementary school special education teacher indicated that ‘I felt like the options for sessions were highly concentrated around technology and STEM [Science Technology Engineering Mathematics]. Most of the sessions did not pertain to my teaching.’ A handful of participants also mentioned sessions in which the content addressed ended up being different from what they had anticipated. The final barrier to participation identified by participants was technology challenges. Although many respondents mentioned the integration of technology as a strength of the Edcamp, 5% of respondents also identified technology as a weakness. Two participants had problems utilizing the conference app and the collaborative notes, which they felt limited their involvement. Another two attendees expressed concerns about social media’s prominent role in the event and how that might exclude some participants less comfortable with such technology.

Beyond the general issue of barriers to participation, the second most common area of critique surrounded the creation of the day’s schedule, which was mentioned in 34% of responses. Some participants did not feel that the manner in which session topics were suggested and selected allowed for all voices to be heard. An elementary school teacher wrote that ‘The selection of topics did not seem as organic as I imagined it to be.’ One respondent was frustrated that ‘it seemed like veteran Edcampers already came in and knew exactly what they wanted to lead.’ A third-grade teacher commented: ‘I’m not sure the way the sessions were determined was the most efficient way to do it. I think with a little more foresight, there could have been a wider variety of offerings.’

Finally, there were several critiques related to the logistics of the event, such as the directions to the parking lot, and the absence of a map with the room layout. These comments pertained more to the execution of the particular event than the general Edcamp model itself. For example, several respondents felt having the Edcamp on a holiday weekend was a weakness.

## Discussion

In contrast to common cynicism among educators in the United States regarding traditional PD approaches, many of the respondents were curious and hopeful about the Edcamp model beforehand, and afterwards they were generally positive about their experiences. Participants valued the opportunity to engage in collaborative discussions on topics of their choice and network with other motivated educators. In an era of increasing demands on teachers in many countries (Ballet and Kelchtermans 2009, Herdeiro and Silva 2013), it seems significant that the respondents were willing to give up a Saturday to participate voluntarily in an Edcamp. Participants in this study overwhelmingly expressed an interest in attending future Edcamps, consistent with the findings of Wake and Mills (2014).

Despite respondents’ enthusiasm regarding their Edcamp experiences, it is unclear what the impact of those experiences will be. The positive energy of the Edcamp could quickly fade as participants return to unchanged school contexts. Although a number of the respondents valued the autonomy they experienced during the event, they may not enjoy such independence in their workplaces. Critics of



single-day PD events have suggested that they can result in teachers knowing about a new practice at a surface level but lacking the deep knowledge and support necessary to successfully enact the new practice in their classrooms (DuFour *et al.* 2005). An individual Edcamp features fewer contact hours than many experts assert are necessary for effective PD (for example, Yoon *et al.* 2007, Desimone 2009). Respondents who were excited to be exposed to new ideas will probably encounter some challenges as they seek to implement those ideas. It is unknown what resources they will be able to draw upon to meet those challenges. Peers at their schools who did not attend the same Edcamp might not know enough about the ideas to provide support, while Edcamp colleagues could lack understanding of other participants' community, school and classroom contexts. Edcamps may therefore be more successful at supporting easier or more straightforward improvements to existing teaching practices, rather than in facilitating more transformative changes in pedagogy. A one-day experience on its own may not change a school's culture or community, or equip individual educators to challenge the *status quo*.

The purposes of PD can be understood to include more than just the learning of specific knowledge or skills. Franke and colleagues (2001) have noted the value in PD that helps teachers see themselves as ongoing learners, continually evaluating and adapting their practices in response to students. Given their participatory format, Edcamps may have the potential to activate and motivate educators as learners in ways that could be just as important as any discrete knowledge they might acquire. However, it is unclear what percentage of participants the Edcamps might have such an effect upon, given that some respondents felt there were barriers to their full participation in Edcamp activities.

Although participant comments suggest that the Edcamp model can manage some of the challenges of collaboration documented in the literature, not all breakout sessions were as collaborative as others. Teachers who have become accustomed to passivity in professional learning settings may need scaffolding to help them join in the conversation, and sessions may also benefit from structures that prevent more extroverted educators from dominating discussion. In some cases, deeply held cultural norms may be stronger than Edcamp structures such as the 'law of two feet.' For example, a teacher who stayed in a session that she found unhelpful commented: 'I could have got up and left but I felt strange doing so and walking into the middle or end of another session.' Different collaboration norms may also affect the way educators from various regions or cultures respond to the Edcamp experience.

In order for a greater percentage of participants to derive maximum benefit from their experiences, Edcamps may need to include more structures that facilitate teacher collaboration without interrupting or disrupting the sense of autonomy that is evidently important to participants. Mechanisms that support the extension of collaboration beyond an individual session would also potentially deepen the impact of Edcamps. One participant comment hinted at such:

Some great ideas were generated that could lead to focus/action groups. I would love to see a way that these sessions could lead to something ongoing where participant continue to collaborate, perhaps virtually, to solve issues, raise awareness, or propose policy.

The regular emergence of such action plans or groups out of Edcamps would probably increase the impact of these events. As Kennedy recently noted in this journal, 'autonomy is only ever transformative if it is translated into agency; that is, it must be enacted in some way to make a positive change to practice' (2014, p. 693). It is

unclear whether or how the autonomy apparent in Edcamps translates into participant agency and changes in practice.

At this early stage in the development of Edcamps, their potential effects upon schools and school districts remain to be seen. The relationship between an informal, participant-driven unconference format and formal education systems that often prioritize standardization may be complicated. Although a small number of schools, districts and conferences have begun to dabble in incorporating Edcamp and other unconference elements into their PD activities, hierarchical structures may conflict with such grassroots approaches. For example, leaders with very specific ideas about areas needing improvement may hesitate to allow teachers to choose their own topics for PD. Also, the allure of unconferences for participants may in some significant part be due to the very fact that they exist outside the typical formal constraints of schools, districts and their policies. Respondents did not express any concerns regarding lack of alignment between their Edcamp experiences and PD activities in their schools or districts, despite the findings of past research that emphasized the importance of PD programs being coherent with other ongoing initiatives (Garet *et al.* 2001, Desimone 2009, Opfer and Pedder 2011). Nonetheless, it is possible that Edcamps will have to become connected in some way with formal education institutions in order to become more than a novelty experienced by a minority of educators. Although some teachers are willing to participate in unrequired, unremunerated PD that is not recognized by recertification regimes, many other educators may choose not to do so. Although the growth of Edcamps in just a few years is noteworthy, even in the United States where they are most common, less than 1% of teachers have ever attended an Edcamp event.

### ***Implications for policy and practice***

The results of this study do appear to hint at a demand from a significant number of educators for PD of the collaborative, participatory, interest-driven type provided by Edcamps. Administrators, school districts and others involved with formal PD may want to contemplate whether any of the elements of the Edcamp model that the participants saw as strengths could potentially be incorporated into other PD activities or programs. Similar to how many teachers are adjusting to the reality that the Internet means they are no longer the only source of expertise readily available to their students, traditional PD providers may also need to respond to the fact that many teachers are no longer content to be merely a passive, captive audience for top-down PD programming. If providers do choose to incorporate Edcamp-like elements into more conventional PD structures, they must be careful to avoid the tendency to tie ‘bureaucratic, managerial knots that squeeze out autonomy and instead seek and reward compliance and uniformity’ (Kennedy 2014, p. 691).

This research also has tentative implications for groups and individuals who organize Edcamps and other unconferences. Respondents identified a number of barriers to their full participation in this Edcamp event, some of which could affect other Edcamps as well. Although it would likely be an unrealistic goal to hope that every Edcamp participant would leave the experience 100% satisfied, organizers might consider different ways to elicit and support the broadest possible participation. In addition, the creation of more themed Edcamps and/or the development of maximally inclusive practices for building the slate of sessions could help ensure that more participants end up satisfied with the topics available to them.

### ***Recommendations for research***

The education field would benefit from further research on Edcamps and other unconference models, as this exploratory study and the other limited prior research on the topic raise as many questions as they answer. Although positive participant perceptions have been reported, ethnographic description of Edcamp events would add depth to the understanding of what transpires in sessions. Studies that span multiple Edcamps would also be beneficial. Because the Edcamp model is a relatively loose framework, there are probably important variations in how different event organizers plan and implement various Edcamps. Furthermore, policy and cultural differences might contribute to significantly different Edcamp experiences in the various regions and countries where they are held. For example, research in Sweden or Canada could reveal important variations in Edcamps in those contexts. Comparing and contrasting different Edcamp events would thus contribute to a fuller understanding of the phenomena.

Beyond exploring the nature of Edcamp events, further research could seek to measure their impact upon teacher learning and behaviors, and on student learning. Teachers do not come to Edcamps as empty vessels, and investigation of how participants integrate their Edcamp experiences with existing beliefs and practices, as well as other PD activities, would therefore benefit the field. Research on the experiences of educators who attend more than one Edcamp could also reveal if and how participants are able to make connections between these experiences, and determine what relationships, actions and/or projects come out of Edcamps. The interplay and overlap between online professional activity and Edcamps also seems to be a topic worthy of exploration. Investigations of if, how and why educators who connect with colleagues via technology supplement or complement those experiences with face-to-face Edcamps could shed light on how teachers engage in voluntary PD across different mediums.

### **Conclusions**

In just four years, the grassroots Edcamp model of PD has grown from a single event to a current level of popularity that regularly sees a single weekend feature five or more Edcamps spread across multiple countries. The educators in this study were motivated to attend Edcamps in their free time, rated their Edcamp experiences highly, and overwhelmingly expressed intentions to participate in future events. But despite such enthusiasm, it is important to bear in mind a warning made more than a decade ago about new approaches to PD: ‘Replacing our old conceptions of professional development with new makes sense only if the new ideas are held up for rigorous discussion and evaluation. New is not always right’ (Wilson and Berne 1999, p. 176). Given the demands for improvement, simply being better than past low-quality PD is not good enough. When comparing Edcamps with the five critical characteristics of PD defined by Desimone (2009) – active learning, coherence, collective participation, content focus and duration – the Edcamp model arguably only checks off the active learning box. Thus, although there are positive findings in this study regarding participants’ perceptions of Edcamp experiences, much remains to be learned about how Edcamps and other unconference approaches to PD can and cannot affect teacher and student learning.

**Disclosure statement**

No potential conflict of interest was reported by the author.

**ORCID**

Jeffrey Paul Carpenter  <http://orcid.org/0000-0002-9228-3962>

**References**

- Atkinson, C., 2009. *The backchannel: how audiences are using Twitter and social media and changing presentations forever*. Berkley, CA: New Riders.
- Ballet, K. and Kelchtermans, G., 2009. Struggling with workload: primary teachers' experience of intensification. *Teaching and teacher education*, 25 (8), 1150–1157.
- Bezzina, C., 2006. The road less traveled: professional communities in secondary schools. *Theory into practice*, 45 (2), 159–167.
- Borko, H., 2004. Professional development and teacher learning: mapping the terrain. *Educational researcher*, 33 (8), 3–15.
- Boule, M., 2011. *Mob rule learning: camps, unconferences, and trashing the talking head*. New York, NY: Information Today.
- Bransford, J.D., Brown, A.L., and Cocking, R.R., eds., 1999. *How people learn: brain, mind, experience, and school*. Washington, DC: National Academy Press.
- Carpenter, J.P. and Krutka, D.G., 2014a. How and why educators use Twitter: a survey of the field. *Journal of research on technology in education*, 46 (4), 414–434. doi:10.1080/15391523.2014.925701.
- Carpenter, J.P. and Krutka, D.G., 2014b. Engagement through microblogging: educator professional development via Twitter. *Professional development in education*, doi:10.1080/19415257.2014.939294.
- Charmaz, K., 2006. *Constructing grounded theory: a practical guide through qualitative analysis*. Thousand Oaks, CA: Sage.
- Demski, J., 2012. Create your own un-conference. *T.H.E. journal*, 39 (5), 42–46.
- Desimone, L., 2009. Improving impact studies of teachers' professional development: toward better conceptualizations and measures. *Educational researcher*, 38 (3), 181–199.
- DuFour, R., Eaker, R., and DuFour, R., eds., 2005. *On common ground: the power of professional learning communities*. Bloomington, IN: National Educational Service.
- Edcamp Foundation, n.d. *What is an Edcamp?* [online]. Available from: <http://edcamp.org/what-is-edcamp/> [Accessed 20 July 2014].
- Ferriter, W.M. and Provenzano, N., 2013. Self-directed learning ... for teachers. *Phi delta kappan*, 95 (3), 16–21.
- Franke, M.L., et al., 2001. Capturing teachers' generative change: a follow-up study of professional development in mathematics. *American educational research journal*, 38 (3), 653–689.
- Garet, M.S., et al., 2001. What makes professional development effective? Results from a national sample of teachers. *American educational research journal*, 38 (4), 915–945.
- Gee, J.P., 2004. *Situated language and learning: a critique of traditional schooling*. New York, NY: Routledge.
- Goddard, Y.L., Goddard, R.D., and Tschannen-Moran, M., 2007. A theoretical and empirical investigation of teacher collaboration for school improvement and student achievement in public elementary schools. *Teachers college record*, 109 (4), 877–896.
- Grossman, P., Wineburg, S., and Woolworth, S., 2001. Toward a theory of teacher community. *Teachers college record*, 103 (6), 942–1012.
- Gunn, J.H. and King, M.B., 2003. Trouble in paradise: power, conflict, and community in an interdisciplinary teaching team. *Urban education*, 38 (2), 173–195.
- Guskey, T., 2009. Closing the knowledge gap on effective professional development. *Educational horizons*, 87 (4), 224–233.
- Harland, J. and Kinder, K., 2014. Teachers' continuing professional development: framing a model of outcomes. *Professional development in education*, 40 (4), 669–682.

- Hawley, W.D. and Valli, L., 2007. Design principles for learner-centered professional development. In: W.D. Hawley and D.L. Rollie, eds. *The keys to effective schools: educational reform as continuous improvement*. Thousand Oaks, CA: Corwin Press, 117–138.
- Herdeiro, R. and Silva, A.M.C., 2013. The quality of teaching and professional development of teachers: a Portuguese study. *Teacher development*, 17 (2), 174–194.
- Hur, J.W. and Brush, T.A., 2009. Teacher participation in online communities: why do teachers want to participate in self-generated online communities of K-12 teachers? *Journal of research on technology in education*, 41 (3), 279–303.
- Ingvarson, L., Meiers, M., and Beavis, A., 2005. Factors affecting the impact of professional development programs on teachers' knowledge, practice, student outcomes & efficacy [online]. *Education policy analysis archives*, 13 (10). Available from: <http://epaa.asu.edu/ojs/article/view/115> [Accessed 19 May 2015].
- Jenkins, H., et al., 2009. *Confronting the challenges of participatory culture: media education for the 21st century*. Cambridge, MA: MIT Press.
- Kennedy, A., 2005. Models of continuing professional development: a framework for analysis. *Journal of in-service education*, 31 (2), 235–250.
- Kennedy, A., 2014. Understanding continuing professional development: the need for theory to impact on policy and practice. *Professional development in education*, 40 (5), 688–697.
- Lauer, P.A., et al., 2014. The impact of short-term professional development on participant outcomes: a review of the literature. *Professional development in education*, 40 (2), 207–227.
- Lawless, K.A. and Pellegrino, J.W., 2007. Professional development in integrating technology into teaching and learning: knowns, unknowns, and ways to pursue better answers. *Review of educational research*, 77 (4), 575–614.
- Lincoln, Y.S. and Guba, E.G., 1985. *Naturalistic inquiry*. Newbury Park, CA: Sage.
- Little, J.W., 2003. Inside teacher community: representations of classroom practice. *Teachers college record*, 105 (6), 913–945.
- Lortie, D., 1975. *Schoolteacher: a sociological study*. Chicago, IL: University of Chicago Press.
- Miles, C., 2014. The diffusion of Edcamp: a 21st century innovation in educator professional development. Unpublished doctoral dissertation. Wilmington University.
- Moon, J., et al., 2014. Beyond comparisons of online versus face-to-face PD: commentary in response to Fishman et al. 'Comparing the impact of online and face-to-face professional development in the context of curriculum implementation.' *Journal of teacher education*, 65 (2), 172–176.
- Mourshed, M., Chijioke, C., and Barber, M., 2010. *How the world's most improved school systems keep getting better*. London: McKinsey & Company.
- Nelson, T.H. and Slavit, D., 2007. Collaborative inquiry among science and mathematics teachers in the USA: professional learning experiences through cross-grade, cross-discipline dialogue. *Journal of in-service education*, 33 (1), 23–39.
- OECD, 2009. *Creating effective teaching and learning environments: first results from teaching and learning international survey (TALIS)* [online]. Available from: [http://www.oecd.org/document/54/0,3343,en\\_2649\\_39263231\\_42980662\\_1\\_1\\_1\\_1,00.html](http://www.oecd.org/document/54/0,3343,en_2649_39263231_42980662_1_1_1_1,00.html) [Accessed 10 May 2014].
- Opfer, V.D. and Pedder, D., 2011. Conceptualizing teacher professional learning. *Review of educational research*, 81 (3), 376–407.
- Owen, H., 2008. *Open space technology: a user's guide*. 3rd ed. San Francisco, CA: Berrett-Koehler.
- Seo, K., 2014. Professional learning of observers, collaborators, and contributors in a teacher-created online community in Korea. *Asia Pacific journal of education*, 34 (3), 337–350.
- Sheffer, J., 2013. *Thoughts from an edcamp rookie* [blog]. Available from: <http://jennscheffer.wordpress.com/2013/05/06/thoughts-from-an-edcamp-rookie-educators-connecting-and-making-progress/> [Accessed 3 July 2014].
- Smylie, M.A., 1989. Teachers' views of the effectiveness of sources of learning to teach. *The elementary school journal*, 89 (5), 543–558.
- Stigler, J.W. and Hiebert, J., 1999. *The teaching gap*. New York, NY: The Free Press.
- Swanson, K., 2014. Edcamp: teachers take back professional development. *Educational leadership*, 71 (8), 36–40.

- Swanson, K. and Leanness, A., 2012. Edcamp: a qualitative exploration [online]. White paper. *The Edcamp Foundation*. Available from: <http://edcamp.org/2012/07/edcamp-a-qualitative-exploration-whitepaper/> [Accessed 4 July 2014].
- Timperley, H. and Alton-Lee, A., 2008. Reframing teacher professional learning: an alternative policy approach to strengthening valued outcomes for diverse learners. *Review of research in education*, 32 (1), 328–369.
- Van den Bergh, L., Ros, A., and Beijaard, D., 2014. Improving teacher feedback during active learning: effects of a professional development program. *American educational research journal*, 51 (4), 772–809.
- Wake, D. and Mills, M., 2014. Edcamp: listening to the voices of teachers. In: M. Searson and M. Ochoa, eds. *Proceedings of Society for information technology & teacher education international conference 2014*. Chesapeake, VA: AACE, 1024–1030.
- Wei, R.C., et al., 2009. *Professional learning in the learning profession: a status report on teacher development in the U.S. & abroad*. Technical report. Oxford, OH: Learning Forward; Stanford, CA: Stanford Center for Opportunity Policy in Education.
- Wesely, P.M., 2013. Investigating the community of practice of world language educators on Twitter. *Journal of teacher education*, 64 (4), 305–318.
- Wilson, S.M. and Berne, J., 1999. Teacher learning and the acquisition of professional knowledge: an examination of research on contemporary professional development. *Review of research in education*, 24, 173–209.
- Yoon, K.S., et al., 2007. *Reviewing the evidence on how teacher professional development affects student achievement* [online]. Issues & Answers Report, REL 2007, no. 033. Washington, DC: US Department of Education, Institute of Education Sciences, National Center for Education Evaluation and Regional Assistance, Regional Educational Laboratory Southwest. Available from: [http://ies.ed.gov/ncee/edlabs/regions/southwest/pdf/rel\\_2007033.pdf](http://ies.ed.gov/ncee/edlabs/regions/southwest/pdf/rel_2007033.pdf) [Accessed 8 August 2014].

## Appendix 1. Survey One

### Edcamp questions

Have you previously attended an Edcamp? \*Required

- Yes
- No

Why have you chosen to attend an Edcamp? \*Required

What factors influenced your decision to sign up? What are you hoping to get out of the experience?

What are some of the features of past conferences or other professional development that you found effective? \*Required

What are some of the features of past conferences or other professional development that you found ineffective? \*Required

## Appendix 2. Survey Two

### Edcamp questions

Evaluate your experience at this Edcamp. \*Required

	1	2	3	4	5	
Poor	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Excellent

2. In your opinion, what were the strengths of this Edcamp? \*Required
3. In your opinion, what were the weaknesses of this Edcamp? \*Required
4. Will you attend more Edcamps in the future? \*Required

- Yes
- No
- Unsure

OPTIONAL: Explain your answer to question #4