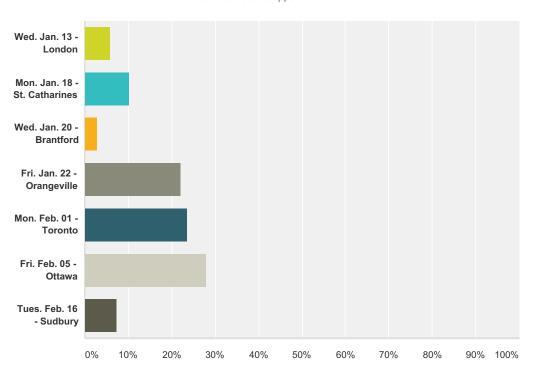
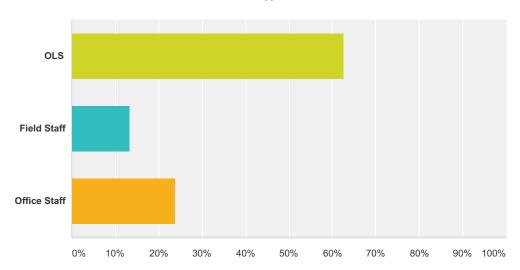
Q1 Which seminar did you attend?



Answer Choices	Responses	
Wed. Jan. 13 - London	5.88%	4
Mon. Jan. 18 - St. Catharines	10.29%	7
Wed. Jan. 20 - Brantford	2.94%	2
Fri. Jan. 22 - Orangeville	22.06%	15
Mon. Feb. 01 - Toronto	23.53%	16
Fri. Feb. 05 - Ottawa	27.94%	19
Tues. Feb. 16 - Sudbury	7.35%	5
Total		68

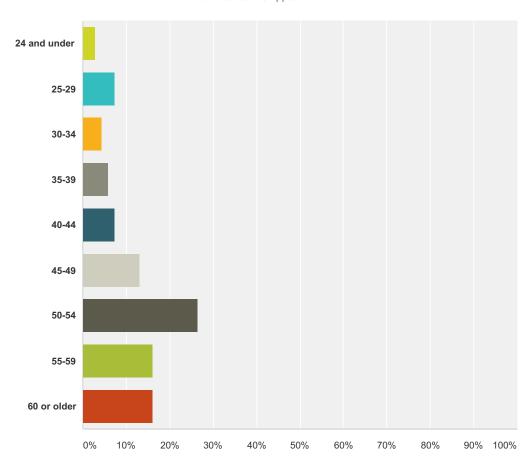
Q2 What is your category?

Answered: 67 Skipped: 1



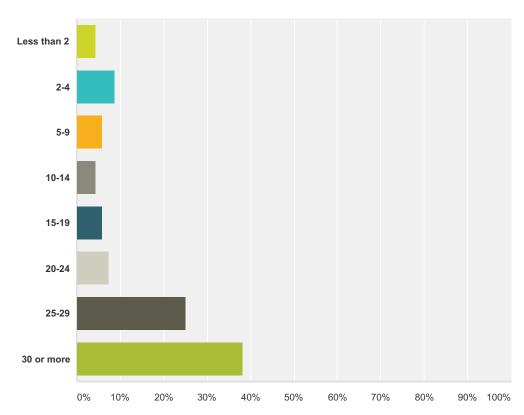
Answer Choices	Responses	
OLS	62.69%	42
Field Staff	13.43%	9
Office Staff	23.88%	16
Total		67

Q3 What is your age?



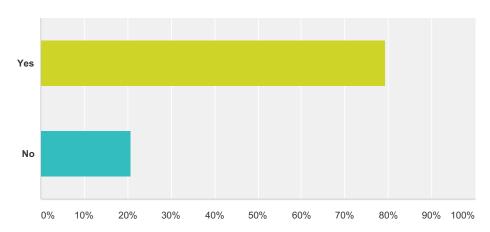
Answer Choices	Responses	
24 and under	2.94%	2
25-29	7.35%	5
30-34	4.41%	3
35-39	5.88%	4
40-44	7.35%	5
45-49	13.24%	9
50-54	26.47%	18
55-59	16.18%	11
60 or older	16.18%	11
Total		68

Q4 How many years have you been in the surveying profession?



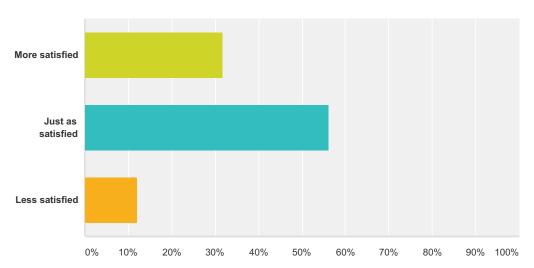
Answer Choices	Responses	
Less than 2	4.41%	3
2-4	8.82%	6
5-9	5.88%	4
10-14	4.41%	3
15-19	5.88%	4
20-24	7.35%	5
25-29	25.00%	17
30 or more	38.24%	26
Total		68

Q5 Do you supervise other employees?



Answer Choices	Responses	
Yes	79.41%	54
No	20.59%	14
Total		68

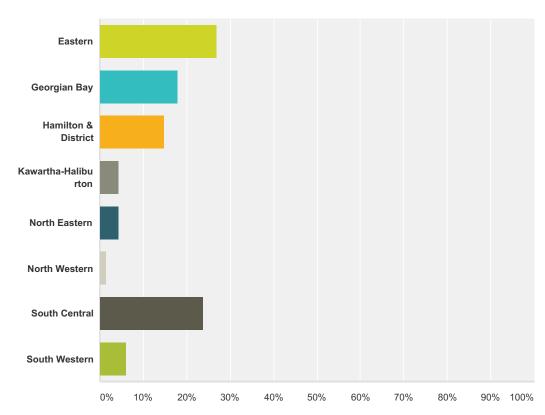
Q6 Compared to five years ago, how would you describe yourself now in regards to your job satisfaction?



Answer Choices	Responses	
More satisfied	31.82%	21
Just as satisfied	56.06%	37
Less satisfied	12.12%	8
Total		66

#	Comments:	Date
1	1st time training with OLS . I am a QLS	2/11/2016 2:29 PM
2	NA new graduate	2/4/2016 9:07 AM
3	Little things bother me less.	2/4/2016 5:54 AM
4	Still hard to collect accounts from clients. Surveyors are always the one place that clients want to scrimp on costs while other professionals are able to charge higher rates. Not enough qualified staff who speak English and no one sees a future in surveying.	2/3/2016 5:58 PM
5	Currently an Articling Student, therefore, the education training of the required courses (due to my past experience, my working Articles were waived) have given me more satisfaction in the world of cadastral surveying.	2/3/2016 1:10 PM
6	how is this related to the Seminar?	1/20/2016 1:39 PM

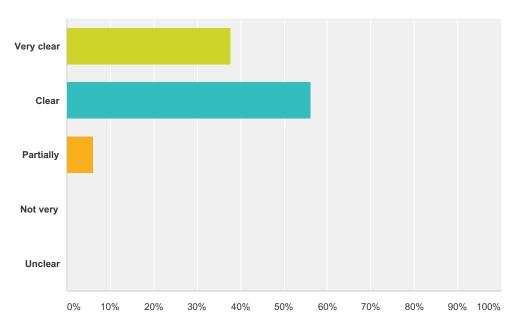
Q7 Where are you based (by Regional Group)?



Answer Choices	Responses	
Eastern	26.87%	18
Georgian Bay	17.91%	12
Hamilton & District	14.93%	10
Kawartha-Haliburton	4.48%	3
North Eastern	4.48%	3
North Western	1.49%	1
South Central	23.88%	16
South Western	5.97%	4
Total		67

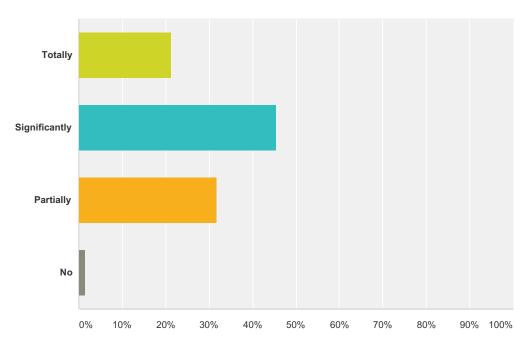
Q8 Were the objectives of the seminar clearly defined?





Answer Choices	Responses	
Very clear	37.88%	25
Clear	56.06%	37
Partially	6.06%	4
Not very	0.00%	0
Unclear	0.00%	0
Total		66

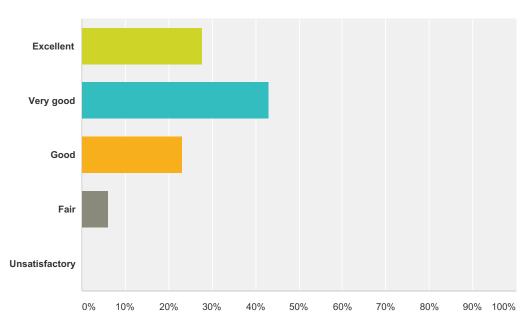
Q9 Did the seminar meet your expectations?



Answer Choices	Responses
Totally	21.21% 14
Significantly	45.45% 30
Partially	31.82% 21
No	1.52% 1
Total	66

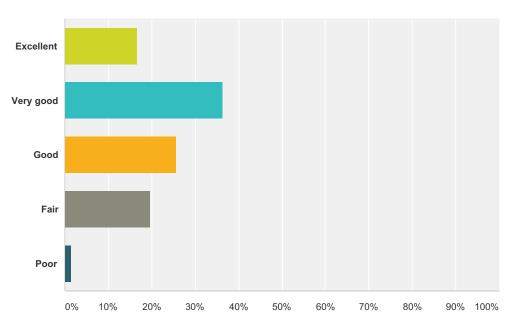
Q10 How would you rate the quality of the seminar leadership and presentation?





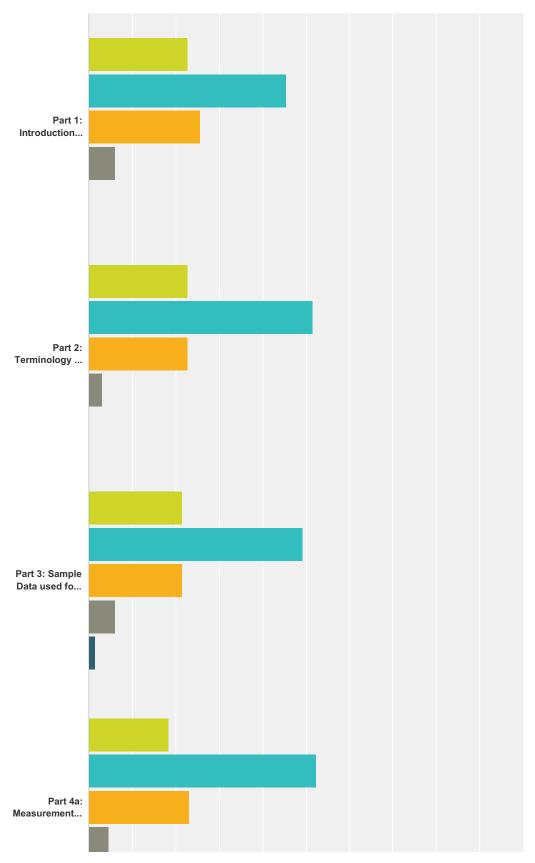
Answer Choices	Responses
Excellent	27.69% 18
Very good	43.08% 28
Good	23.08% 15
Fair	6.15% 4
Unsatisfactory	0.00%
Total	65

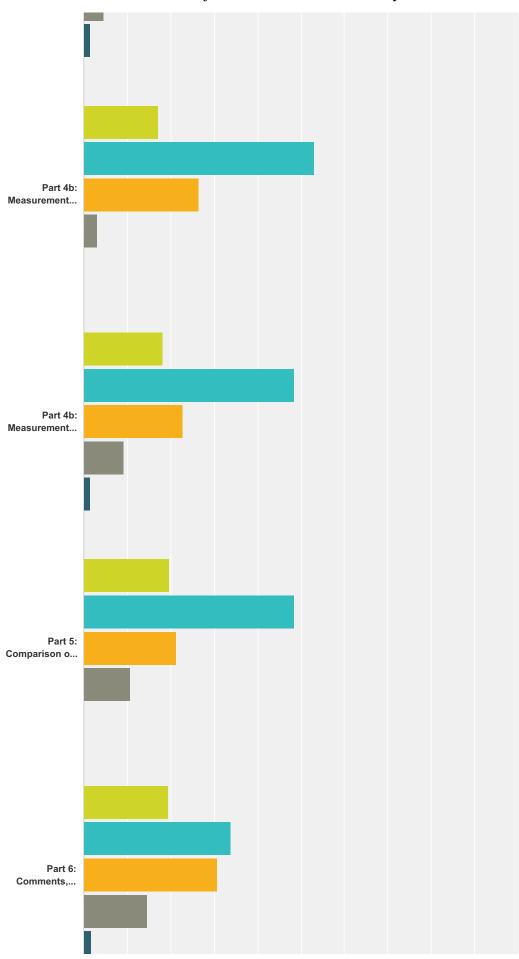
Q11 How would you rate the overall value of the seminar to you?

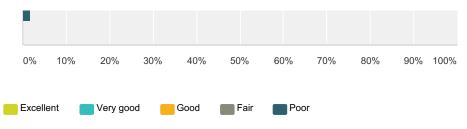


Answer Choices	Responses
Excellent	16.67% 11
Very good	36.36% 24
Good	25.76% 17
Fair	19.70% 13
Poor	1.52% 1
Total	66

Q12 How would you rate the individual components of the seminar to you?

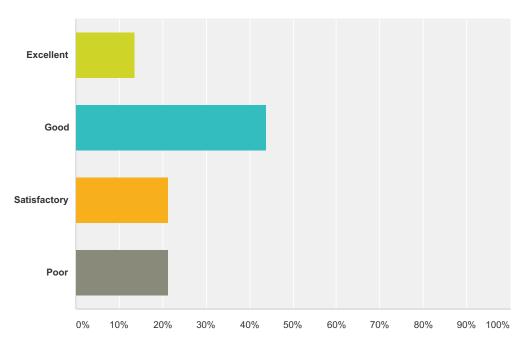






	Excellent	Very good	Good	Fair	Poor	Tota
Part 1: Introduction and Seminar Outline	22.73%	45.45%	25.76%	6.06%	0.00%	
	15	30	17	4	0	(
Part 2: Terminology & Concepts of Measurement Adjustment	22.73%	51.52%	22.73%	3.03%	0.00%	
	15	34	15	2	0	(
Part 3: Sample Data used for all Adjustments	21.54%	49.23%	21.54%	6.15%	1.54%	
	14	32	14	4	1	
Part 4a: Measurement Adjustment – RTN Survey Data	18.46%	52.31%	23.08%	4.62%	1.54%	
	12	34	15	3	1	
Part 4b: Measurement Adjustment – RTK Survey Data	17.19%	53.13%	26.56%	3.13%	0.00%	
	11	34	17	2	0	
Part 4b: Measurement Adjustment – Total Station Survey Data (Compass Rule, Transit Rule &	18.18%	48.48%	22.73%	9.09%	1.52%	
Least Squares)	12	32	15	6	1	
Part 5: Comparison of Adjustment Methods	19.70%	48.48%	21.21%	10.61%	0.00%	
	13	32	14	7	0	
Part 6: Comments, General Questions, Seminar Critique & Goodbye	19.35%	33.87%	30.65%	14.52%	1.61%	
	12	21	19	9	1	

Q13 How would you rate the venue facilities?



Answer Choices	Responses	
Excellent	13.64%	9
Good	43.94%	29
Satisfactory	21.21%	14
Poor	21.21%	14
Total		66

Q14 Please identify three things that you found most important during the day

#	Responses	Date
1	What impressed me the most was the amount of time Paul put into his observations and adjustments. No one to my knowledge has ever done anything like this before.	2/24/2016 1:36 PM
2	Clear presentation of information. The presentation was not "rushed" and did not try to present too much information in the time available. Lots of time for questions.	2/24/2016 9:59 AM
3	I thought that the understanding of the three different adjustments where interesting, as well as the compairsons and importance of each.	2/18/2016 8:26 AM
4	good communication by teacher to class	2/17/2016 5:34 PM
5	software, RTN data available for post processing, PPP results improve with time	2/17/2016 3:33 PM
6	Various adjustment and measurement methods	2/11/2016 2:33 PM
7	-the importance of coordinate adjustment -move towards least squares adjustments -mixing of technologies	2/11/2016 12:48 PM
8	The analysis of the data was interesting. It was something that most surveyors wish they could find time to do, but don't. Overall it was interesting, I find it could have been something presented in a few hours.	2/10/2016 6:26 PM
9	LSA	2/10/2016 10:40 AM
10	Good lunch	2/10/2016 10:00 AM
11	-The comparisons between different adjustments were great! -I really believe in LSA's as a valuable tool, much more so then compass rule, I liked the way you proved that fact with real examples -I was impressed with the presenter's ability to speak about something so technical for such a long period of time.	2/10/2016 9:32 AM
12	The benefits of least squares clearly came across. Instructor excellent considering the amount of information to deliver. Very intense, should maybe spread aver more than one day?	2/10/2016 8:07 AM
13	1) total station and gps combined adjustments 2) error ellipse	2/10/2016 5:57 AM
14	- Comparative analysis of different adjustment techniques and results - discussion of manufacturer's GPS equipment specifications and length of GPS observation times - interaction with members of the survey community to discuss which adjustment techniques are used by each individual firm	2/9/2016 7:39 PM
15	A very good explanation of standard deviation, residuals, least squares adjustment	2/9/2016 6:08 PM
16	Different methods of surveys, methods of adjustment and importance of doing adjustment	2/9/2016 4:35 PM
17	ADJUSTMENT METHODS, CONCEPT, OF MEASUREMENT ADJUSTMENT	2/4/2016 11:41 AM
18	over all everything was well done.	2/4/2016 9:15 AM
19	clarification of adjustment methodology 2. example of using multiple methods in collecting data 3. redundancy methods	2/4/2016 8:49 AM
20	Mr. Wyman did a phenomenal amount of preparation. He clearly did far more background work than what he presented. 2. He had the answers to questions even before they arose. 3. He related the theory to the survey regulations and day-to-day operations.	2/4/2016 6:27 AM
21	Overall review wrt integration regulation Concern regarding meeting the regulation Example provided during seminar was very helpful to illustrate integration process	2/3/2016 3:09 PM
22	The room was too small. Access to lunch was a joke. At one point, the room was so cold I started getting leg cramps. If there are going to be that many people, get a larger room.	2/3/2016 2:33 PM
23	Comparison of PPP, RTN, and RTK.	2/3/2016 2:22 PM
24	The comparison of RTN, RTK and total station surveys and the different levels of precision and accuracy. Comparison of compass method, least squares and transit method.	2/3/2016 2:11 PM
25	Least Squares Adjustment Validation of most of our practices	2/3/2016 1:43 PM

	•	
26	1) the comparison of results from conventional traverse vs RTN surveying 2) the conclusion that decent results can still be obtained by closing a conventional traverse with the standard compass rule adjustment	2/3/2016 1:41 PM
27	1) Venue was cramped, poor use of thermostat,HotCold 2) Food was good but then again crammed in like sardines! 3) Very good seminar & Instructor.	2/3/2016 1:36 PM
28	incorporation of gps techniques into surveying various methods of checking gps measurements	2/3/2016 1:19 PM
29	- Terminology & Concepts of Measurement Adjustment - Measurement Adjustment - RTN Survey Data - Measurement Adjustment - RTK Survey Data	1/26/2016 7:56 AM
30	Comparison to all 3 gps methods to transit. The 3 methods of balancing data. The geometry of how to balance the best.	1/25/2016 6:43 PM
31	I learned a few things that I didn't know before.	1/25/2016 5:22 PM
32	The summary of adjustment methods was well presented.	1/25/2016 2:06 PM
33	1.) StarNet - least squares- Good overall demo as I wondering what the "feel" was. The fact that even if a traditional traverse closes; there may be inherent discrepancies with measured vs. "true" values 3.) Interesting sidebar on the North American plate migration and tipping as the various CSRS epochs. I had always thought that each new epoch was a result of refinements of true values, not actual movement of the N.A. plate	1/25/2016 1:56 PM
34	quantitative analysis of results comparison of adjustment methods "real world" analysis	1/25/2016 1:45 PM
35	1. Yet another seminar that clearly demonstrates how difficult and costly it is to comply with integrating "all angles and topographic information" to the urban standard, which needs to be re-considered.	1/25/2016 1:40 PM
36	more redundancy equals better results, error ellipses, compliance with integration regulations	1/25/2016 12:51 PM
37	The importance of adjustments even if field traverses closed well. What situations to use which adjustment method. The impact and accuracy of using adjustment methods.	1/25/2016 12:51 PM
38	Meet other surveyors. Introduction to Starnet. Improvement combing RTN with total station travers	1/25/2016 12:50 PM
39	Shooting the same things with 3 different instrumentation and comparing was very interesting. Seeing someone else do this and compare the results to a baseline was very helpful and will give a lot of confidence in my own work and practice.	1/21/2016 10:27 PM
40	Accuracy of commercial systems 2) Adjustment methods to meet survey level requirements 3) Methods for checking field measurements	1/21/2016 4:01 PM
41	NR Can Web site for common scale factor RTN and RTK Survey, Measurement Adjustment Overview Total Station Least Squares Adjustment	1/21/2016 4:00 PM
42	A very good refresher, will make an effort to utilize least squares adjustments where we haven't in the past.	1/21/2016 3:43 PM
43	-Great comparison of survey methods despite the overwhelming number of charts -Logical order of topics kept this all day seminar going quickly -Excellent review of the importance of redundancy	1/21/2016 9:38 AM
44	-The importance of using GPS across site to achieve proper integrationConfirmation of detecting blunder technics Confirmation of adjusting data compared to un-adjusted data.	1/21/2016 8:26 AM
45	1) difference between RTK & RTN 2) Comparison of least squares, and other methods to identify the limitations and benefits of using each 3) how to obtain a scale factor 4) importance of "washing" through the data in cadastral surveying	1/21/2016 8:24 AM
46	1. CSF calc using NR Canada site 2. Least Squares adjusting 3. Face-time contact with peers in Industry	1/20/2016 3:03 PM
47	- value in adjusting results - Least Squares and StarNet -GPS methodology to increase accuracies and provide opportunity to adjust (average)	1/20/2016 1:44 PM

Q15 Any other comments or recommendations

#	Responses	Date
1	It was very useful to see how the various types of adjustments "measured" up to one another.	2/24/2016 1:36 PM
2	There is a disconnect between the presentation and the guidelines for survey integration. The guidelines clearly state that the coordinates we show on the plan are to be to the Urban, Rural and Remote accuracy standards. (The Regulation is not so clear). However, the presentation indicated that the accuracy standard would apply to the entire survey.	2/24/2016 9:59 AM
3	I really enjoyed the seminar and Paul is a great instructor, but I do feel like I got lost on the understanding of the Least Squares Adjustment. I feel like it needed to be explained a bit more. But overall very well done, and a wonderful location!	2/18/2016 8:26 AM
4	Paul is passionate about his subject matter and that makes the seminar more interesting.	2/11/2016 4:48 PM
5	Maybe less time spent in the analysis of data (Excel spreadsheet)	2/11/2016 2:33 PM
6	The overhead powerpoints slides were difficult to see. I realize I need glass, but something should be done to try to make it clearer	2/10/2016 6:26 PM
7	A lot of this seminar should have been for the less experienced Office Staff & Party Chiefs. Should have been more info on running the data collectors & site calibrations etc.	2/10/2016 12:41 PM
8	More on LSA	2/10/2016 10:40 AM
9	I could not see the numbers in the excel table from where I sat.	2/10/2016 10:00 AM
10	Where was the level loop?!!! It would have been great to see the comparison to trigonometric levelling in an LSA.	2/10/2016 9:32 AM
11	Course very technical. Impossible in seminar situation but would be great to work on a computer the example with step by step instructions. Maybe a webinar with Starnet as a part 2 for practical and hands on exercise?	2/10/2016 8:07 AM
12	Would have liked more time on total station and gps combined adjustment	2/10/2016 5:57 AM
13	there should be a discussion on minimum elevation masks and understanding PDOP and high RMS	2/9/2016 7:39 PM
14	The seminar was very much one sided, the instructor could have stimulated more audience participation, I enjoy hearing stories/examples from others in our profession.	2/9/2016 6:08 PM
15	The introduction could have been shortened, to leave time for more in depth information. The seminar could have focused more on common issues, and ways to identify them. along with a focus on normal results instead of real field data which did not meet normal expatiations.	2/4/2016 9:15 AM
16	Cannot express how bad the venue was.	2/4/2016 8:49 AM
17	Paul Wyman presented this seminar with humility, humour and authority.	2/4/2016 6:27 AM
18	It is unfortunate that the meeting was a bit small for the group.	2/3/2016 3:09 PM
19	I was expecting a number of real world (various) examples of adjustments, more specifically a number of examples of least squares adjustments. However, this was a comparative exercise which unequivocally proved to me that with today's measurement technology and proper survey methodology, adjustments to regular cadastral survey data are really quite unnessary.	2/3/2016 2:33 PM
20	The venue was terrible. Very cramped room, awful temperature control, ok food but not good space/location for the food. No drinks with lunch? I was expecting a more hands-on or interactive presentation - not just looking at tables all day. The format of the course needs to varied a bit or have two presenters. Perhaps a task sheet to follow along with or some exercises to build on throughout the day.	2/3/2016 2:22 PM
21	I found the seminar very interesting, however, I feel less time needed to be spent on inputting data into star net, as the steps were repeated for each type of survey.	2/3/2016 2:11 PM

22	The room was much too crowded, with no real space to eat lunch. The seminar content was interesting, and it was good to see the comparison of the results of the different surveying techniques. The crowd appeared to be all OLS's. As such, much of the basics could have been abreiviated considerably. While it was good to get the CPD hours, I felt that the material could have been handled in a shorter time frame.	2/3/2016 1:41 PM
23	To bad this course is not mandatory to your membership. I feel the majority of surveyors could use it! I would suggest the elimination of the "High Precision" data and use the 2 sets of RTK/RTN data as a baseline. Also, no more mention of "Compass" or "Transit" rules. I believe it has been mathematically proven, especially with todays technology, that "Least Squares" is the road to travelpermanently!	2/3/2016 1:36 PM
24	limit number of people to space of venue	2/3/2016 1:19 PM
25	There are different learning styles. There should have been a different delivery method using various teaching methods to have addressed the learning styles. I'm sure the learning outcomes were not met for this type of course given the lecture only method. Kinesthetic learning ie hands on would have probably provided for a better learning outcome. Being lectured at for 8 hours likely did not get the information through to the learners in any fashion that would have provided a significant benefit. Maybe work stations should have been used where the participants could have worked through a mock adjustment. I know there are logistical issues and licencing issues for this to have happened. Please do not hesitate to call John D'Amico if assistance is needed in the future to set up a better approach to a course or seminar.	1/26/2016 9:32 AM
26	n/a	1/26/2016 7:56 AM
27	Less detail into charts, was very hard to follow which method was which. Give more time at end for questions, I feel people wanted to get out of course because it was Friday at 5pm and let there questions slide.	1/25/2016 6:43 PM
28	The presenter could have covered the sources of errors associated with GPS measurements more thoroughly. The need to preserve raw files as collected in the field for future processing was not stressed to the participants.	1/25/2016 2:06 PM
29	Paul Wyman is an articulate and very knowledgeable speaker. He had the seminar well organized. No demonstration hiccups. Pretty dry subject- made interesting by his enthusiasm, insights and practical tips.	1/25/2016 1:56 PM
30	chairs were uncomfortable in the afternoon	1/25/2016 1:45 PM
31	comparing survey adjustment results with fewer data sets (RTK,RTN,Total station) may have been better, RTN or RTK could have been dropped or conversely, static obs could have been added instead of RTN or RTK	1/25/2016 12:51 PM
32	Less comparison tables. While comparing data was interesting, the amount of time spent felt excessive. Especially since no concrete assessements could be made after comparing all of them. Also, more time explaining the difference of each method (I.e. sample equations) would have been beneficial.	1/25/2016 12:51 PM
33	Print a copy of pdf materials for each table to look at during seminar and tell people to bring laptops to review CD during seminar	1/25/2016 12:50 PM
34	Any other seminar where a surveyor takes out equipment and tries different methods would be of interest. I'd be interested in seeing how traversing with a base station on each end of a line and how longer RTN occupation times would compare.	1/21/2016 10:27 PM
35	The material was very good, and the adjustment discussions were very relevant. I found the continuous charts displayed over and over to be a little redundant, and thought it could be achieved either in less slides or more interactively to keep the audience more engaged. Overall I thought it was a very worthwhile presentation.	1/21/2016 4:01 PM
36	More interaction with participants. More visual aids during seminar Sections went a little long between breaks.	1/21/2016 4:00 PM
37	A very useful and practical seminar - I took away a lot. This cannot be said for most AOLS seminars	1/21/2016 3:43 PM
38	-A handout of the site we referred to would have made it easier to follow along. I was drawing the sketch as we moved through the seminar, but did not have all the point numbers on my sketch that were referred to in the charts.	1/21/2016 9:38 AM
39	Found that there was a lot of repeative situations during presentation in how the adjustments were applied to each sample of the survey. Once adjustment theroy was explained I would have just shown comparisons between each survey method.	1/21/2016 8:26 AM
40	the course went a little long in duration in my opinion. Would have been nice to finish on time, or eliminate the vast amount of comparison charts.	1/21/2016 8:24 AM
41	More practical examples of using GPS - less analytical review of the findings of the study. How does the AOLS want GPS field notes to look, how to incorporate GPS and TS work. Complete survey with GPS - checks? Guidelines for observation times, redundancy check etc.	1/20/2016 3:03 PM
42	the room was FREEZING! people were wearing coats. No one spoke up about it though. was interesting that much of the adjustment was done using spreadsheets. I suspect it was a way to show without singling out 1 software package	1/20/2016 1:44 PM

Q16 What other courses would you like the AOLS to offer?

#	Responses	Date
1	Maybe something on Land Titles searching.	2/24/2016 1:36 PM
2	It would be interesting for them to have a course on how to understand and comprehend different legal documents etc.	2/18/2016 8:26 AM
3	assessing survey evidence and applications	2/17/2016 3:33 PM
4	Let the OLS answering this question	2/11/2016 2:33 PM
5	Detailed LSA	2/10/2016 10:40 AM
6	Topographic surveys. Processing point clouds and 3D modelling. Draping imagery. Using breaklines, surfaces, etc.	2/10/2016 9:32 AM
7	use of trimble software	2/10/2016 5:57 AM
8	A course focused on RTK and Network RTK GPS surveys, show results between Traditional Total Station and RTK methods (Horizontal & Vertical Accuracy)	2/9/2016 6:08 PM
9	a course focusing on new and relevant case law	2/4/2016 9:15 AM
10	How to check survey plans from start to finish: 1. sufficiency of documentary and field research. 2. Assessment of physical and documentary evidence, 3. legal principles (priority of registration, proportioning), 4. labeling of parcels, PINs, easements, instruments, 5. measurement comparisons and rotation of astronomic bearings to grid, 6. does the plan reflect the field work, 7. accuracy and sufficiency of field measurements, 8. field notes showing physical evidence and occupation including utilities, fences and buildings. 9. report of decisions made with regard to the establishment of boundaries. 10. catching computer glitches such as wrongly plotted or missing layers and wrong linetypes when plotted with different equipment.	2/4/2016 6:27 AM
11	Upwards of 95%, probably 98% of liability claims against surveyors have absolutely nothing to do with boundary surveys. A land surveyor can go an entire career without being sued over a "sloppy" unadjusted boundary survey. Instead of wasting 8 hour lectures on making sure our boundary points are within 1cm or less maybe there should be some form instruction on how to deal with construction issues including layout from start to finish so that every other surveyor and their brothers and sisters aren't going to be sued every time they are involved in some form of construction project.	2/3/2016 2:33 PM
12	Best practices with RTN surveying. I get the impression that some users of this equipment take short cuts, which give results, but, not proven results. Perhaps some training or demonstration of data processing software, such as Leica Geo Office. The Adjustment seminar used Starnet.	2/3/2016 1:41 PM
13	As integration is a major player today, maybe a spin off of Paul's course. No more Spiro stuff on 95% probability definitionsdown to the meat & potatoes of what surveyor's want to know. For example: 1) traditional survey methods, Total Station v. RTK v. RTN v. PPP 2) How to integrate in the field to be truly 95% confident 3) Lets get the "Raw Data" and adjust it with "Least Squares" only. Maybe a couple of different software programs (Star*Net & GeoLabs) 4) Lets build in some mistakes and blunders and educate how to look and identify these. Integration isn't about only setting UTM coordinates on the front corners of the survey, it too must replicate the parcel being surveyed.	2/3/2016 1:36 PM
14	n/a	1/26/2016 7:56 AM
15	1) Business Planning 2) Best Practices for Data Management & Survey Deliverables	1/25/2016 2:06 PM
16	Practical grading and drainage for residential building permits.	1/25/2016 1:56 PM
17	not sure	1/25/2016 1:45 PM
18	boundary law seminar - basic evidence principles (not so much for OLS's but definitely for technical staff and party chiefs	1/25/2016 12:51 PM
19	Advanced calculations. Coordinate systems.	1/25/2016 12:51 PM
20	Starnet	1/25/2016 12:50 PM
21	Perhaps something else along the same lines of reviewing some of the basics that we learned so long ago that they are forgotten would be to go through some of the calculations concerning the combined scale factor with a view on understanding exactly the factors that affect it.	1/21/2016 10:27 PM

22	No comment at this time	1/21/2016 9:38 AM
23	1) Calibration Zone - is this the end? 2) Field Staff focus on surveying	1/21/2016 8:24 AM
24	Hands on session with field equipment for office staff, basic CAD for field staff, searching LSR\PIMARC and Teraview.	1/20/2016 3:03 PM