<u>BC Piping Trades Articulation Group – June 18, 2019</u> ("Collaboration Day")

1. Welcome - Introductions & Orientation

Participants: BCIT: Tim Carson, Mark Overgaard, Ron Stewart

Camosun College: Jamie McPherson, Darren Vaux

College of New Caledonia: Troy Werrell

KPU: Rob Hall-Thomson, Rob Lafreniere, Sven Rohde

Okanagan College: Brad Oliver, Bruce Slater Pacific Vocational College: Eric Bradbury

Thomson Rivers University: Pat Barringer, Paul Simpson

Viega LLC: Lino Santoro

Secretary: Dani Blackett

- At 8:48am, Darren Vaux, Chair, opened and welcomed the group to Kwantlen Polytechnic University (KPU). A round of introductions were made.

2. Collaborative Practice, Curriculum, Learning and Teaching

- Tim Carson (BCIT) presented on Collaboration (Collaborative Practice). This day was designed to be a facilitated workshop period.
- Collaboration and trust can be difficult and complex. There are differing philosophies of vocational education and training (VET) and silos of knowledge and information, both between different institutions and different departments.
- Tim put forth Adam Kahane's branched model of situational analysis and response.

3. Design Phase I and II – answering the tough questions re: barriers to Curriculum Development

Formed breakout groups to discuss curriculum resources and challenges surrounding them

3.1. Design Phase I - Discovery

- Common threads included challenges with time and funding, problems with materials / resources (outdated, mistakes, poorly organized, etc.), achieving intended outcomes (e.g., alignment with test concepts).
- There were calls for more support in the form of funding, and a collaborative plan across institutions. When working on curriculum, the group said they focus on time management, finding the right resources, matching curriculum to users, and accessing / being mindful of funding.
- Pain points regarding how industry views VET providers were identified, and how these relate to curriculum development. Further, pain points and feedback from the first rounds of Level 1 harmonized curriculums were discussed. There is a lot of information to cover in a short period of time, some students feel overwhelmed. Eric mentioned that his students are advised to start reviewing the material up to 3 weeks in advance in order to be adequately prepared.

3.2. Design Phase II – Interpret

- The groups defined an "extreme user of content". Tim posed the question of whether the group's interpretation of the word "extreme" affects the way curriculum is taught, organized, and developed.
- Discussion on "15% Solutions" solutions that could actually be achieved within one year. LMS stuff, common online resources, alignment in training manuals / resources from different institutions/bodies (TTBC, open campus, etc.), updating exams, maintenance more than creating something new.

4. Design Phase III - Ideation

- The group reflected on patterns that had come up in the morning session of the workshop. They reiterated that the time has come for a change, and Paul commented that he pleasantly surprised by the fact that every institution seems to be "in the same boat". There is a sense of alignment of objectives amongst the group, moving forward.
- Tim tasked the breakout groups to answer questions relating to the Purpose, Principle (boundaries), Participants, Structure (how is it organized), and Practices (next steps).
- The group came back with wide-stretching ideas, including:
 - The main purpose is a common or standardized curriculum / resources and general alignment. Buy-in across different institutions could be the biggest barrier. Could the AC Chair (Darren) start it at the ITA-level, and have it diffuse that way? Could this AC group have more "say" over materials? Is it possible to get more funding from ITA as opposed to other sources? There is input from many organizations could just one organization (e.g., BC Campus) "run" it? Would it be worth creating a Document of Intent, to maintain accountability in reaching these goals? Another common thread in the discussion was more frequent meetings / updating of materials and resources.

5. Design Phase IV / Debrief

- Things that did and did not work during the collaboration day were discussed.
- The point of leveraging vendors for funding was raised. Could the curriculum committees meet more/for longer? How can students be more involved in the curriculum?

BC Piping Trades Articulation Group – June 19, 2019

8. Welcome – Introductions & Orientation

Participants: **BCIT**: Tim Carson, Mark Overgaard, Ron Stewart

Camosun College: Jamie McPherson, Darren Vaux

College of New Caledonia: Troy Werrell

KPU: Brian Moukperian (Dean), Rob Hall-Thomson, Rob

Lafreniere, Sven Rohde

Okanagan College: Brad Oliver, Bruce Slater Pacific Vocational College: Eric Bradbury Piping Industry College: Audrey Curran

Thomson Rivers University: Pat Barringer, Paul Simpson

University of the Fraser Valley: Rod Smith

Viega LLC: Lino Santoro

Guests: BC Water & Waste Association: Marian Hands, Corry Wong

ITA: Colleen Rogan, Angela Caughy, Christina Kare, Anita

Handregan

Nelson Publishing/ATP: Marcia Siekowski, Stacey Metz

Technical Safety BC: Marisa Mihailoff, Ryan Milligan, Rick Vanier

Regrets: Jack Moes **Secretary**: Dani Blackett

- At 8:34am, Darren Vaux, Chair, opened and Dean of Trades and Technology
 Brian Moukperian welcomed the group to Kwantlen Polytechnic University (KPU).
 Dean Brian briefed the group on the differences between individual learning modules (ILMs) in Alberta and BC, as well as other provinces.
- In Alberta, by next year, plumbing, gas-fitting, sprinkler-fitting, and steam-fitting will all have the same common-core. Steam goes to 4 Levels. Gap training failed.
- BC seems to be doing the right thing by students. Other provinces do not appear to be doing harmonization. There is no language around it at all, though Alberta has taken steps towards it by standardizing names of trades (e.g., millwright). Ontario has stood down. Other provinces' steps towards harmonization appear to be first harmonizing the name, second the content, and third the hours within the content. Dean Brian highlighted the differences in hours across provinces even within the same trade (e.g., for sheet metal, Alberta 40 weeks, Ontario 16 weeks, BC 32 weeks).
- Most provinces have gone away from the Certification of Apprenticeship, now may just say "Completed Apprenticeship" at the bottom of Certification of Qualification.
- A round of introductions was made.

9. Approval of 2019 Agenda

9.1. Amendments to Agenda

- System Liaison Person (SLP) Jack Moes was unable to attend this meeting, with regrets. Darren could ask BCATTA or a committee representative could ask their Dean to find someone else to take over this portfolio.

Action: Strike Item 12.2 (System Liaison Person (SLP))

 BC Council on Admissions & Transfers (BCCAT) will not be able to send a representative.

Action: Strike Item 18.1 (BC Council on Admissions and Transfer (BCCAT)

MOTION 1: 9:07am. Moved McPherson / Seconded Oliver BIRT the agenda be approved as amended. CARRIED

10. Approval of Minutes from June 2018
MOTION 2: 9:00am. Moved McPherson / Seconded Simpson
BIRT last year's minutes be approved as presented.
CARRIED

11. Review of Action Items & Business Arising from Past Minutes

- Camosun, BCIT, Okanagan have advisory committees. TRU has attempted but there are some impediments. KPU is looking towards forming a group, with encouragement from their Dean. College of New Caledonia had a PAC meeting in March with four members from industry; those representatives wanted training times of apprentices changed to summer because apprentices go to school when the workload is high.
- Jack Moes had an action item but is not present no follow-up/response was received.
- ITA was asked last year about the Red Seal in gas and whether an apprentice from BC could obtain their Red Seal from another province no follow-up/response was received.
- Action item from last year to add "Collaboration Day" was successful, carried out yesterday June 18, 2019. It is suggested that this be continued.
- Darren was actioned to write a letter to this committee supporting the use of BC plumbing modules, reiterates now to continue using the modules, and that even if they are not perfect, they will be improved.

12. Reports

12.1. Member PAC Reports/Minutes

- At Okanagan College, two PAC meetings a year, in the Spring & Fall, with 15 members each time. Sheet metal contractors, plumbing, mechanical, wholesalers, etc. People were upset Gas was being taken out this year, it's a big thing in the Okanagan for a plumber to have a gas ticket.
- University of the Fraser Valley did not meet this year. Usually meet in October.
- BCIT also meets twice a year. Their PAC has seen some turnover, so they are looking at incorporating program graduates who now own companies. ITA and TSBC have standing invitations. Plumbing, gas, commercial contractors all on the PAC with some supplier representation. Some contractors are "fuzzy" on what gas alignment looks like and what impact it has on plumbing training. Some contractors are "a mixed bag" about what the future looks like with plumbers not having their gas. Some shock there is no path to Gas B Red Seal in the province.

Steamfitting apprenticeship is slowing, two classes have been cancelled. A decline in foundation numbers could be because industry is so busy right now. Just finished first G1 10-week harmonized gas class, it went well. In the tail-end of being audited by TSBC for Gas L1 material. On plumbing – running multiple (double) classes to accommodate all apprenticeships. P1 harmonized has run for four classes, looking at harmonizing L2 next year. Running a triple P3 for the first time ever starting in August, a double 4 and a double 2 also running. Students are finding it hard to get into the system to find training and can't book in for a year and a half in some cases, even though BCIT is running doubles.

- KPU has waiting lists for all their levels, currently running a couple L2s, an L3, an L4. Foundation numbers are also a little low compared to previous years. Trying to figure out why.
- PVC sees L1 pretty steady, some lower numbers. Running double L4s right now and for the next two intakes, to appease the industry. Would do double L2s, 3s if they could but are limited. On their 3rd harmonized L1. will be doing Standard Level Exams (SLEs) at the end of this month.
- TRU have been trying for two years to get a PAC approved. The pre-existing group was void in the eyes of the school. There are some institutional / bureaucratic barriers, but industry is interested in talking. Appointment letters need to be sent. Running 1234 as usual, two Gas A courses on the schedule, and a full foundation session. Waitlists are pretty large right now.
- Camosun's first PAC for Refrigeration was in March, a stand-alone PAC to get the apprenticeship back up and running after stopping 8 years ago. Will have 2 FT instructors as of August. When students come out of foundations, it was requested they have full-service tech (like Okanagan). Meeting again in the fall. Re: the Plumbing PAC, numbers are up (35% over last year's apprenticeship, on track for another 20% higher) but they are out of classrooms until next year with the new campus, then can hopefully grow. Apprentices at SkillsBC did well. Starting to deliver Piping Trades "sampler" into the community (mostly indigenous communities). ITA gave an update – employers are not happy about the gas, but understood in the end. It can be tough to get employers into a PAC, maybe bring wholesalers.
- College of New Caledonia had an informal PAC.
- PIC had an informal PAC, talking about courses that are going on. Was really
 packed and now has dropped off. People are just going straight to work. Waitlists
 for most levels other than foundations, L1.
- Issues with getting employers, contractors, PACs going were discussed. Some talk around which institutions have formal processes and which have informal processes.

12.2. System Liaison Person (SLP) Report

Jack Moes was unavailable.

12.3. BCWWA Report

 Marian Hands, acting CEO, and Corry Wong, Certification Coordinator, presented the annual BC Water & Waste Association (BCWWA) report. BCWWA's Strategic Plan, Mission & Goals, and the Cross-Connection Program (CCC Program) were covered. The Mission has been scaled down, and the focus on the water sector's engaged network has increased. See www.bcwwa.org for more information.

- The CCC Educational Advisory Committee's focus is to create a Proctor Management Program to standardize the proctoring and proctor training processes. The CCC Technical Advisory Committee will focus on what other CCC programs within BC do to learn best practices and standardize within the province. There is a standing invitation to members of the BC Piping Trades Articulation Group to any of these committee meetings.
- There are around 2000 certified testers in BC right now. BCIT has gone completely online for testing, receiving marks within hours. This is a partnership between BCIT's Testing Center and BCWWA and has been beneficial to part-time study students. Interested institutions should contact BCWWA. Tim Carson requested that BCWWA certify more proctors, especially for the practical exam.

12.4. TSBC Report

- Rick Vanier, Ryan Milligan, and Marisa Mihailoff presented on the roles and responsibilities of Technical Safety BC (TSBC) and gave an update on client education, certification & licensing, and technical support.
- TSBC provides education for clients even after certification/graduation. Client Journey and Client Spectrum models were developed. The Client Journey model helps determine content necessary, the Client Spectrum helps determine how best to deliver that content. To that end, mandated Continuing Education is coming for gas required credits of continuing education for recertification, similar to electrical.
- Rick spoke on syllabus and exam bank updates, an increase in electronic exams, and more comprehensive review of programs. Training providers will be reached out to for input regarding syllabus & exam TOS development. The new Class B Exam should be implemented by 2023; this allows those that are currently in the system to pass through without change coming while they are actively in the system.
- TSBC requested that instructors' names be printed, not signed, on Course Certificates of Completion. This Certificate must be presented when a client goes to write their exam. If a Certification has been expired (closed) more than 3 years, the client will now have to re-exam. They are looking at getting away from the current practice where a "vouch letter" is sufficient for apprentices that take longer than 12 months to submit their trades qualification.
- The importance that code books brought to exams do not contain written notes, etc., was reiterated. Calculators used in exams should be the same as the ones used in classrooms

Action: Rick says he will contact Client Care about this.

 The timeliness of exam results coming back to students was discussed – perhaps the results could either be held off until after Red Seal IP exams are

- written to alleviate some stress. Alternatively, would it be possible for exam results to come sooner?
- Annual reports will be prepared, highlighting average scores by topic area on exams. This will allow TSBC to collaborate more effectively on program reviews with training providers who show students with low averages.
- TSBC will not be assisting with the Articulation Group's efforts of developing common curriculum amongst institutions but will review whatever curriculum is put forth to them.
- Students in other trades where their education covers gas will not have to write a G1 exam, but the training provider will have to be a TSBC recognized G1 provider.
- Ryan has seen a lack of awareness in industry of what the different certification marks mean, and the limitations these impose on a gasfitter. He discussed the steps in TSBC's gas product approval process, which allows a previously unregistered/unapproved product to be deemed CSA B149.3 compliant.
- Last week in Ottawa, public review and comments on Code B149 were reviewed and those codes will be published in January 2020. TSBC will then create an adoption committee which recommends to the Ministry to accept the proposal. Adoption will likely take 1-2 years after publication of the new codes. B149.3 particularly will have a lot of changes. So will Section 5.

12.5. ITA Report

- Colleen Rogan, Angela Caughy, and Christina Kare presented. Hard-copy reports were distributed to Articulation Group members.
- Plumbing/Steamfitting: Harmonized Level 1 launched in April, and we are now in Year 1. Challenging current L1 and L2 has not been allowed. Anyone with 0 technical training has been slotted into the harmonized technical training program. Once a harmonization implementation date is passed, the level cannot be challenged anymore.
- Sprinkler Fitting: All harmonized levels launched at once. Gasfitter Class B: Probably won't ever be harmonized. Refrigeration: launching December this year. Gasfitter Class A: has gone from 1 level to 2, will be Red Seal, anticipated launch April 2021, after Gas B is fully implemented. Refrigeration will still have to register as a gas apprentice.
- Exams were developed last year and are now in the piloting stage; by the end of June, almost all exams should have been piloted. Next steps will be to review feedback from students. Exams should be ready sometime in the Fall, but an OPSN will be issued.
- Exams: General Area of Competency (GAC)-H in Plumbing L2 showed to be somewhat low. Steamfitter/Pipefitter Exams: pass rates could bump up a bit but are not a huge concern. National pass rates take into consideration challengers of IPSEs, whereas BC rates only look at apprentices and first-time writers, so it is difficult to compare the rates.

12.5a. National Plumbing Code Discussion

- SLE Exams: new considerations are necessary now that the code is online, but no external electronic devices are permitted in exams.

Action: The Articulation Group is asked to come up with ideas for how to handle the fact that no electronic devices can be brought into exams.

- IP Exams: the issues faced by having IPs attached to a specific code book is that each jurisdiction is implementing a new codebook at a different time, so you continuously run into logistical timing problems with the implementation of the exam. Plumbing Exams are being piloted with the use of codebook excerpts in the exam book instead. Everything they need to write the exam is contained within the exam; they don't need to bring their own codebook.
- Paul Simpson raised the concern that apprentices writing the exam are negatively impacted when they find out they do not get their full codebook during the exam. Darren expanded that it inhibits their ability to use the code as well as they otherwise could have, with access to the full codebook resource. Ultimately, the codebook is not used page-by-page, it is used as an entire entity. These concerns were affirmed by Tim. Rob Lafreniere mentioned that changing something so extremely right before such an important exam could drastically increase anxiety levels in exam-writers.

Action 1: Darren will work on the wording of questions and concerns posed by the Articulation Group and send it to Colleen. Questions and concerns raised by the group include:

Jamie McPherson: If there would be questions with a dimension that the apprentice would not get in the codebook excerpt.

Brad Oliver: Whether conversion tables in the back of the book will be provided. Audrey Curran: How the excerpts are chosen.

Rob Lafreniere: An example of what a question looks like without a codebook.

Action 2: Colleen will take the compiled questions and concerns to the body in Alberta developing the FAQ for the IP Exam. She has said she will bring the concerns forward at a National Level as part of the National Agenda Meeting in September.

- Nationally, harmonization is an integral part of the development of the new Red Seal standard. The trade is harmonized as this standard is developed. When it comes to implementing the programs, different provinces are on different schedules some are phased in, some are two at a time, etc. Some programs did not need to change, because the sequencing for harmonization landed pretty much the same as that trade's current program in its jurisdiction.
- BC has made a conscious decision to be highly collaborative with training providers and industry, whereas in many other jurisdictions there is not the same sense of cooperation. Quebec has a very different system, where technical & apprenticeship are separate, and so is not participating in any of the sequencing of harmonization. Ontario is heavily involved in harmonization but is struggling with implementation. The Ontario College of Trades has been dissolved and the new government is still trying to plan where to take the apprenticeship authority in Ontario.

13. Presentation: Nelson Publishing/ATP: "Exploring the Canadian Plumbing Design and Installation student resource"

- Marcia Siekowski presented on NELSON, a Canadian-owned publisher. They do print books, digital content, assessment, and have a campus channel. All LMS materials are handled within Canada, also. The books are peer-reviewed and come with workbooks which reinforce the students' use of the codebooks. She demonstrated some of the online resources available to learners, included with the textbook purchase.
- The Canadian version(s) of the texts will draw from American products, SMEs, and other sources as needed/requested. NELSON maps the ITA guidelines to the textbooks for each level. The goal is to have one book for each of the four levels. When new code drops, they work to have a new edition of the textbook out by August of that year.
- Marcia also went over resources and training available to instructors with NELSON / Cengage / ATP, including customized publishing programs.

14. New Business / Open Discussion:

- Paul reopened the discussion regarding the changes to the IP Exams as presented by ITA. He expressed that this type of change would not be forced on other trades like electricians or carpenters, and so the Articulation Group should not allow it to happen to pipe trades. Rick (TSBC) mentioned he would not allow this to happen to gas because one of the things TSBC tests for is, is the person able to read the code.
- Around the room, pride in the fact that pipe trades have a code-based exam and are code-based trades is expressed.
- Paul: Maybe this group needs to stand up and say something, strong and unified, and not be pushed over. How do we start to get a reputation for "meaning business"?
- Lino Santoro suggests reaching out to other provincial Articulation Groups a more unified front could possibly be formed.
- Tim suggested the group could write a letter on key initiatives that federally make a big deal, and essential skills that form the foundation of training. Document reading, understanding, utilization, etc.
- Darren, Tim and Rob Hall-Thomson remark that even this big of a change shouldn't/won't affect how code is taught for the first three years; this is only for the IP exam. They are still expected to be proficient in using the codebook.

MOTION 3: 3:50pm. Moved Simpson / Seconded Carson BIRT the meeting adjourns until 8:30am tomorrow. No discussion. Chair called the vote. Result: Unanimous CARRIED

BC Piping Trades Articulation Group – June 20, 2019

16. Welcome – Introductions

Participants: BCIT: Tim Carson, Mark Overgaard, Ron Stewart

Camosun College: Jamie McPherson, Darren Vaux

College of New Caledonia: Troy Werrell

KPU: Rob Hall-Thomson, Rob Lafreniere, Sven Rohde

Northern Lights College: Matthew Earl Okanagan College: Brad Oliver, Bruce Slater Pacific Vocational College: Eric Bradbury Piping Industry College: Audrey Curran

Thomson Rivers University: Pat Barringer, Paul Simpson

University of the Fraser Valley: Rod Smith

Guests: Technical Safety BC: Rick Vanier, Alena Urilou

Trades Training BC: Pat Matthieu, Bonnie Johnston (via Skype)

BC Campus: Chad Flinn

Secretary: Dani Blackett

- At 8:40am, Darren Vaux, Chair, called the meeting to order. Alena Urilou (TSBC) began a round of introductions.

17. Gasfitter Training Program Recognition

- Alena presented on TSBC's Training Provider Recognition programs. TSBC is a non-profit organization that oversees seven types of technical systems and equipment. They utilize a risk-based oversight method. She emphasized the relationship between the training providers and the employers of skilled workers (students) and discussed the case studies and resources available from TSBC's website.
- Training challenges were discussed. Paul brought up discrepancies (e.g., costs) between gas and other trades (e.g., electrical) and how higher-ups in administration don't necessarily understand where the discrepancies come from. Alena agreed that it is important for TSBC to support training providers at the appropriate levels of administration (e.g., Dean-level). She also expressed that in the future it may be worth looking critically at why TSBC handles other trades like electrical differently (i.e., at more of a distance), and may need to be more involved.
- Brad asked if gas will ever go to FSR, like electrical. Alena answered that due to gas being a smaller industry it may not be possible/practical.
- Rob L. and Darren brought up that cohesive / harmonized training materials and student resources are possibly the biggest issue for TSBC. For gas, CSA helps; otherwise, ITA and TTBC help design curriculum. There is a demand for harmonized gas curriculum. Alena brought up the Pan-Global (BCIT, SAIT, NAIT) group that designs curriculum for power engineering / boiler as an example of something that could be mimicked.
- Because of gas, TSBC has introduced online testing through Moodle. They are working to expand their capacity and capability to do this and ask for feedback on these online exams.

- The new TSBC Class A Syllabus will show some new LNG, CNG material. The ITA is planning on running it in Red Seal but the process is not yet completely clear. TSBC needs to identify gaps still (e.g., out-of-province students don't have the same training in electrical) and there are terms and conditions yet to be set. The path at the end of the new A is not clear, as it could depend on where the student's training was. If in BC, then TSBC is confident their syllabus has been covered; out-of-province would not have gone through that. Once it goes Red Seal, maybe they need to start looking at the FSR program.
- Harmonized G1 and G2 cannot be taught until the providers are TSBC recognized. A also will require recognition when it is complete. Rick has asked for 6-8 weeks to go through it, to identify training gaps, etc.

New Item: Governance - Confidence Vote

- Darren and Brad have been in their positions here for two years now. Because the Articulation Group doesn't have a TOR, a succession plan, technically at any time the committee could do a no-confidence vote.
- Paul: I propose that we hold a Vote of Confidence in the current leadership for this year. We can revisit this every year.

Brad exited 10:03am

MOTION 4: 10:03am. Moved Simpson / Seconded Rohde "I move to hold a Vote of Confidence in Brad Oliver for the role of Vice Chair of the BC Piping Trades Articulation Group."

No discussion. Chair called the vote. Result: Unanimous CARRIED

Brad entered 10:05am Darren exited 10:05am

> Troy Werrell: Darren takes good control, listens, and is a good peacemaker. In my view, he's knowledgeable and willing to help and doing a great job. This is key in a leader.

MOTION 5: 10:05am. Moved Werrell / Seconded Smith
"I move to hold a Vote of Confidence in Darren Vaux for the role of Chair of the
BC Piping Trades Articulation Group."
No discussion. Vice Chair called the vote. Result: Unanimous
CARRIED

Darren entered 10:07am

New Item: Unfinished Business

 Darren distributed a letter drafted by Tim on behalf of the Articulation Group. The letter expressed their concerns with yesterday's presentation Re: the pilot change to the Inter-Provincial Red Seal Exam as put forth by ITA.

- It was submitted to the group for feedback and edits with intent for Darren to forward it onto the appropriate channel (e.g., CCDA in Ottawa, the ITA, and/or other relevant parties). Darren may also connect with other provincial instructor bodies/Articulation Groups, with Jamie's help, to get their thoughts.
- Eric suggested a contact from NAIT may be helpful, someone who liaises with AB and ON (because of their volume of apprentices). He mentioned that BC's CCDA contact is Shelley Gray (the CEO of ITA).
- The intent of the letter is supported by the group, subject to some wordsmithing.

MOTION 6: 10:17am. Moved Simpson / Seconded Lafreniere "I move that the Chair forward the committee-approved letter (subject to final revision) Re: the pilot change to the IPRSE's use of the codebook, to the appropriate parties."

Discussion:

- Tim: I suggest sending it sooner rather than later, a time limit for edits no longer than five days from today.
- Darren: I'd like to send it tomorrow.
- Paul: So, the time limit for feedback is until tomorrow.

Chair called the vote. Result: Unanimous CARRIED

18. Reports

18.1. Trades Training BC

- Trades Training BC (TTBC) was formed as a consortium to present a singular voice to the ITA.
- Bonnie Johnston joined via Skype call to present a BC Harmonization Curriculum Development Project Update.
- Phase 1 and Phase 2 trades are completed, Phase 3 are almost; Phase 4 & 5 starting. A lot has been learned from big trades like plumbing. There is some sharing across trades as well.
- Bonnie discussed the resource materials available to instructors in the repository on TTBC's website. Some instructors have not accessed these materials yet. The repository is still in development, but Phase 1 & 2 trades are represented and complete. Common L1 for Piping Trades is completed.
- Instructors can choose to be notified when new information is uploaded to the repository. Darren suggested that communication to instructors has perhaps not been effective (as some instructors weren't even aware harmonized materials were available this fall). Pat said she sends lists to the Deans about which instructors have access & which ones want updates, but says she can start keeping Darren up-to-date as this could help the information be distributed better.
- Instructors can ask for access to the repository at https://files.tradestrainingbc.ca
- Bonnie showed some of the information available to instructors in the repository including student checklists, activity plans, and more.
- Pat Matthieu has helped develop the TTBC training plan system. Harmonization in TTBC's world has 5 Phases (groups of trades that have gone through harmonization). Pipe Trades are in Phase 3.

- \$1.55M was given to develop Phase 1 & 2. \$1.3M was given to support Phase 3, 4, & 5. Money left over from 1 & 2 were moved into 3, 4, & 5. There is budget for post-sprint development, for a time-period of up to 80% of a program's duration. This includes development of the instructor resources as shown by Bonnie.
- The second pot of money comes in chunks and is for student resources. Materials are currently with ITA but moving to BC Campus. TTBC was given a contract to develop L1 student materials. They are now developed and getting their first proof. Once approved, they will be available on the Queens Printers shopping cart and will be loaded to the BC Trades Module site. Old materials will still be retained, in a different folder. Each level runs approximately \$150,000 to develop. Royalties have been going down over the years, from \$465,000 to around \$350,000. Under the new model, the new materials will eventually be free (Pat says, according to BC Campus).
- Darren brought to Pat's attention that L3 is going to be a particular challenge as there are currently no commonalities. Gap analysis for L2 is the next step.

18.2. BC Campus/Open Educational Resources

- Chad Flinn talked about Open Educational Resources (OERs) as well as the licensing and practices that go into them.
- "Open", in this context, does not necessarily mean free. Instead, OERs are resources that can be copied, used, adapted, and re-shared freely. OERs are built on the principle of 5R's: retain, reuse, revise, remix, redistribute. They must have one of six Creative Commons licenses, not a traditional copyright.
- When looking for OERs or asking questions about them, start with BC Campus.
 The US has a resource called Skills Commons, though it may be limited.
 Workforce LibreTexts is another website with construction / trades resources.
 You can also search on YouTube for "Creative Commons".
- OERs also have a strong connection with the concept of Open Pedagogy. Chad discussed his own experiences with having his students be involved in the creation of their own educational resources.

MOTION 7: 12:25pm. Moved McPherson / Seconded Simpson "I propose that the next Articulation Group meeting be June 16-18, 2020 in Whistler, BC. Exact location TBD." No discussion. Chair called the vote. Result: Unanimous CARRIED

MOTION 8: 12:58pm. Moved Slater / Seconded Carson BIRT the 2019 meeting of the BC Piping Trades Articulation Group adjourns. Discussion:

 Because there was no presence from the SLP, and in the absence of a few other guests, we will be ending at 1pm.

Chair called the vote. Result: Unanimous CARRIED