Session	Date	Expansive learning action	Preparation	Issues from last session	First stimuli (Problem as presented to participants)	Second stimuli (Frameworks participants will be invited to think with)	Mirror data (illustrations of problems, audio-visual where possible, textual where necessary) update immediately prior to session	Participant data from workbooks for subsequent re-presentation	Potential expressions of transformative agency	Social organisation	Folder for mirror data and task stimuli
Zero	16-Jan-21	Session zero conducted during briefing for all participants, 16 Jan 21. Introduce participants and researcher-interventionists, set up the space and surfaces, negotiate access outside sessions, share URLs for shared whiteboards, issue and discuss workbooks, and conduct ethical checks.								Whole group in IT suite, introductions and expectations.	20201111 Moffitt CL models tools mirror session zero
1st	01-Feb-21	1. Question activity (small groups of learners)	Gantt chart for sessions. Blank models of activity systems. Expansive cycles. Last five years of SARs, QIPs, RSME Plan. DSAT operational performance statements.	Discuss highlights from pre-CL workshop on conceptions of TEL and activity. Avoid contaminating and compromising "other" first sessions, FOREGROUND that separate groups are undergoing the first session before a joint session.	What drives current activity for TEL and boundary learning? What are the sub-group's problems?	Templates of group activity and individual action; models of how artefacts mediate and the satisfaction of need. Delineate own group activity. Models of production for the collaborative remediation of WTW infra and for PEW's boundary learning.	Illustrate problems with current activity: images from recent tasks; AV of TEL activity involving all participants; AV of failures implicating current activity. Ethnographic data: constructing BSN, TAQ attack on BSN, infra images, site diaries, TEL policies and cases, task reports, tactical infrastructure reconnaissance reports, post-operational and post-exercise reports. AV: BSN video of construction and BSN video of attack; relate to external expertise and current ways of engaging. Images of HN infra for TEL.	Completed models of production in workbooks; perceived problems with activity. All to complete workbook exercises - operations, actions and activity. Prepare to contribute to ideas and tools: disturbances in current activity from own perspective	1. Resisting 2. Criticising	Group of learners in Rm L2-021. First sessions conducted in separate sub-groups prior to plenary, due to politically charged problems.	20201111 Moffitt CL models tools mirror session 1 2 3
2nd	15-Feb-21	1. Question activity (small groups of lecturers)	Blank models of activity systems. Expansive cycles. Last five years of SARs, QIPs, RSME Plan. University liaison reports. Job Specifications and organigrams.	Discuss highlights from pre-CL workshop on conceptions of TEL and activity. Avoid contaminating and compromising "other" first sessions, FOREGROUND that separate groups are undergoing the first session before a joint session.	What drives current activity for TEL and boundary learning? What are the sub-group's problems?	Templates of group activity and individual action; models of how artefacts mediate and the satisfaction of need. Delineate own group activity. Models of production for the collaborative remediation of WTW infra and for PEW's boundary learning.	Illustrate problems with current activity: images from recent tasks; AV of TEL activity involving all participants; AV of failures implicating current activity. Ethnographic data: site diaries, TEL policies and cases, task reports, tactical infrastructure reconnaissance reports, post-operational and post-exercise reports. AV: BSN video of construction and BSN video of attack; relate to external expertise and current ways of engaging. Images of HN infra for TEL.	Completed models of production in workbooks; perceived problems with activity. All to complete workbook exercises - operations, actions and activity. Prepare to contribute to ideas and tools: disturbances in current activity from own perspective.	1. Resisting 2. Criticising	Group of managers in Rm L2-021. First sessions conducted in separate sub-groups prior to plenary, due to politically charged problems.	20201111 Moffitt CL models tools mirror session 1 2 3
3rd	01-Mar-21	1. Question activity (small groups of managers)	Blank models of activity systems. Expansive cycles. Last five years of SARs, QIPs, RSME Plan. University liaison reports. Engineering council reports.	Discuss highlights from pre-CL workshop on conceptions of TEL and activity. Avoid contaminating and compromising "other" first sessions, FOREGROUND that separate groups are undergoing the first session before a joint session.	What drives current activity for TEL and boundary learning? What are the sub-group's problems?	Templates of group activity and individual action; models of how artefacts mediate and the satisfaction of need. Delineate own group activity. Models of production for the collaborative remediation of WTW infra and for PEW's boundary learning.	Illustrate problems with current activity: images from recent tasks; AV of TEL activity involving all participants; AV of failures implicating current activity. Ethnographic data: site diaries, TEL policies and cases, task reports, tactical infrastructure reconnaissance reports, post-operational and post-exercise reports. AV: BSN video of construction and BSN video of attack; relate to external expertise and current ways of engaging. Images of HN infra for TEL.	Completed models of production in workbooks; perceived problems with activity. All to complete workbook exercises - operations, actions and activity. Prepare to contribute to ideas and tools: disturbances in current activity from own perspective	1. Resisting 2. Criticising	Group of academics in Rm L2-021. First sessions conducted in separate sub-groups prior to plenary, due to politically charged problems.	20201111 Moffitt CL models tools mirror session 1 2 3
4th	15-Mar-21	1. Question activity (whole group)	AF2020 and Carter's models of contingency, INVAL and EXVAL points, comments from Technical Symposium. For aggravation of contradictions see 20200111_Moffitt_CL_coding on ATLAS.ti files for potential areas to explore regarding dialectical contradictions.	As a group, first compile organic interpretation for equitable contribution and privacy. From sub-groups to whole-group perceptions and conceptions of activity.	What drives current activity for TEL and boundary learning? What are the whole group's problems?	Complete activity system model. Models of motive, goals and conditions for activity, actions and operations. Scanlon and Issroff 5 factors for artefact mediation.	Illustrate problems with current activity: images from recent tasks; AV of TEL activity involving all participants; AV of failures implicating current activity. Ethnographic data and AV of previous sub-group sessions to provoke whole-group dialectics. AV: AFG video of rebuilding infra and problems with engaging across boundaries; how could TEL activity at the PEW be contributing to the problem?	Completed models of production in workbooks; perceived problems with activity. All to complete workbook exercises - from activity to historical analysis. Prepare to contribute to mirror material: evidence of disturbances in current activity from own perspective.	2. Criticising 3. Explicating	Whole group in IT suite. Sub-group and plenary work. First pan-group session, which may need legitimisation and normalisation of social antagonism, blame, and critique.	20201111 Moffitt CL models tools mirror session 4
5th	29-Mar-21	2a. Historical analyses	DIO and MOD audits. RE Journal and Sapper Telegraph. RE Lessons Identified Database. Operational back-briefs.	Tensions with activity and with CL; monitor input and control of participants.	What or who are the main problems with our current activity? How did we get to this point?	Building up activity from the satisfaction of need, to consider evolving rules, community and division of labour. Four-field templates of past, present and future forms of control for the PEW. Timelines and the tabulated historical development of activity's elements.	Exhibit evolution of activity: AV data showing participant involvement; TEL from Afghanistan, South Sudan and Sierra Leone to expose historical problem. Ethnographic data: site diaries, TEL policies and cases, task reports, tactical infrastructure reconnaissance reports, post-operational and post-exercise reports. AV: The Balkans and reliance on external sources of expertise (this time HN staff) on infra show that this isn't new; how did we get to this point?	Lessons identified from personal experiences; problems in objects and historical contradictions. Workbook exercises - from historical analyses to actual-empirical analyses. Prepare to contribute to mirror material: moving from disturbances to contradictions, and modes of failure. Failure as impetus for change.	3. Explicating 4. Envisioning	Whole group in IT suite, sub-group exercises and plenary, introducing small group tasks with syndicates formed from different participant groups.	20201111 Moffitt CL models tools mirror session 5
6th	12-Apr-21	2b. Actual-empirical analyses	DIO and MOD audits. Operational lessons identified. RE Journal and Sapper Telegraph.	Historically evolving tensions may unintentionally emasculate less experienced members.	What are the requirements for change? How do our actions align with our activity?	Templates of activity with primary and secondary contradictions. Systemic levels and orientation templates for operation, action and activity. Use versus exchange value for SERE examples.	Re-present AV data, wiki and hard copies. Four-field model of historical evolution, mapped to actual-empirical evidence "how we got here". Operational and task failure data, group models. Graphical data of contradictions and their effects on stakeholders. Provoke progression to actual-empirical analyses; AV data of participants contributing to the object; graphical exhibition of inner contradictions. AV: Ebola Treatment Units in Sierra Leone; compare the "ground truth" with "the good news". What needs to change? What about our actions?	Exercises on the control of activity; proposals for changes to how activity is delineated. Workbook exercises - springboards for new activity. Prepare to contribute to ideas and tools: "What? So what? Now what? How did we get here?" Complete change matrix.	3. Explicating 4. Envisioning	Whole group in PEW Seminar room, sub-group exercises and plenary, small group tasks with syndicates formed from different participant groups.	20201111 Moffitt CL models tools mirror session 6
7th	26-Apr-21	3. Modelling	Policy and practice; evidence for re-presentation and discussion including from previous sessions. Flip charts 1 per pair + 1.	Politically contentious territory for managers in presence of learners, and for managers in presence of lecturers.	What does the new object need to be? What do the new mediating artefacts need to be?	Exchange, distribution & consumption; new and old activity; tertiary contradictions. SWOT and DEEPLIST assessment templates, partial model for redesigning a military ZPD. Residual disturbances in poorly modelled historical activity; ID role of artefacts and objects.	Illustrate old elements to help model new activity: video interview of previous cohort on experiences of inner contradictions; challenges and opportunities from peers. Re-present AV data, evidence of contradictions from ETUs in Sierra Leone as springboard. AV: Reports and discussions of consistent failure to install Kajaki Dam turbines. Any thoughts on the object and artefacts?	Reflections on previous TEL experiences related to "old rules and new tools" contradictions. Consider, from a personal perspective, how contradictions can be a positive impetus for change. Pareto analysis of future issues. Workbook exercises - Examining the redesigned activity.	4. Envisioning 5. Committing	Whole group in PEW Seminar room, sub-group exercises and plenary, small group tasks with syndicates formed from different participant groups.	20201111 Moffitt CL models tools mirror session 7
8th	10-May-21	4. Examining	Dependent upon re-presentation of previous session on modelling. AV edited as mirror material.	Provocation of different perceptions from modelling, affecting the trial.	How will our new model be trialled? What are the key areas of concern for its sustenance?	Interacting activities; expansive cycle; quaternary contradictions. Exercise: "Redesigning the military ZPD" and the template for "old rules and new tools". Evolution of collaboration and contextualization through time.	Promote intersubjective ownership of new model and its contradictions: participants' jointly compiled model of new activity; proposals for all contradictions. Provoke reflection: re-present a synopsis of all previous mirror material and stimuli in chronological order of the intervention. AV: Project ANEMOI. How can trials influence activity? What aspects inform future sustenance?	Reflections on previous TEL experiences of "old division of labour and new tools" contradictions. Locate the PEW into the four-field model of organizational culture. Workbook exercises - experimental implementation.	5. Committing	Whole group in IT suite L2-036, sub-group exercises and plenary, small group tasks with syndicates formed from different participant groups.	20201111 Moffitt CL models tools mirror session 8

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9th	24-May-21	5. Implementing new activity (small groups)	Prepare to discuss trialled implementation, including deconfliction with CoC in PEW and HQ RSME.	Contrast of realization of areas of concern for sustenance.	How will the sub-group's trialled implementation of the model change the model?	Completed activity system; neighbouring systems. Deming PDCA cycle from Libya and Uganda. Exercises: "old rules and new tools" and "Old divisions of labour and new tools".	Prepare for a strategic trial: re-present the completed model of activity; re-examine its real and potential contradictions. Re-present models and concrete examples. Four field model of organizational culture WRT change. Overlay aggregated responses to discuss outliers. AV: After Action Review and PDCA from Uganda / Libya; how to change activity for military TEL?	Diary entries of problems experienced during implementation, disturbance diaries and completion of definitions.	5. Committing 6. Taking action	Sub-groups in IT suite L2-036. Implementation discussions conducted in separate sub-groups prior to plenary, due to politically charged problems.	[20201111 Moffitt CL models tools mirror session 9_10_11](#)
10th	07-Jun-21	5. Implementing new activity (small groups)	Prepare to discuss trialled implementation, including deconfliction with CoC in PEW and HQ RSME.	Contrast of realization of areas of concern for sustenance.	How will the sub-group's trialled implementation of the model change the model?	Completed activity system; neighbouring systems. Deming PDCA cycle from Libya and Uganda. Exercises: "old rules and new tools" and "Old divisions of labour and new tools".	Prepare for a strategic trial: re-present the completed model of activity; re-examine its real and potential contradictions. Re-present models and concrete examples. Four field model of organizational culture WRT change. Overlay aggregated responses to discuss outliers. AV: After Action Review and PDCA from Uganda / Libya; how to change activity for military TEL?	Diary entries of problems experienced during implementation, disturbance diaries and completion of definitions.	5. Committing 6. Taking action	Sub-groups in IT suite L2-036. Implementation discussions conducted in separate sub-groups prior to plenary, due to politically charged problems.	[20201111 Moffitt CL models tools mirror session 9_10_11](#)
11th	21-Jun-21	5. Implementing new activity (small groups)	Prepare to discuss trialled implementation, including deconfliction with CoC in PEW and HQ RSME.	Contrast of realization of areas of concern for sustenance.	How will the sub-group's trialled implementation of the model change the model?	Completed activity system; neighbouring systems. Deming PDCA cycle from Libya and Uganda. Exercises: "old rules and new tools" and "Old divisions of labour and new tools".	Prepare for a strategic trial: re-present the completed model of activity; re-examine its real and potential contradictions. Re-present models and concrete examples. Four field model of organizational culture WRT change. Overlay aggregated responses to discuss outliers. AV: After Action Review and PDCA from Uganda / Libya; how to change activity for military TEL?	Diary entries of problems experienced during implementation, disturbance diaries and completion of definitions.	5. Committing 6. Taking action	Sub-groups in IT suite L2-036. Implementation discussions conducted in separate sub-groups prior to plenary, due to politically charged problems.	[20201111 Moffitt CL models tools mirror session 9_10_11](#)
12th	05-Jul-21	5. Implementing new activity (whole group)	Assemble signposts to / from previous three sessions. Prepare to discuss trialled implementation as a whole group, including deconfliction with CoC in PEW and HQ RSME.	Contrast of realization of areas of concern for sustenance.	How will the whole group's trialled implementation of the model change the model?	Completed activity system; neighbouring systems. Deming PDCA cycle from Libya and Uganda. Policies, doctrine and strategies for RSME, PEW and Tech Trg. Exercises and group grid: "support" "residual and stubborn disturbances" and see also re-presented mirror material.	Prepare for a strategic trial: re-present the completed model of activity; re-examine its real and potential contradictions. Re-present models and concrete examples. Four field model of organizational culture WRT change. Overlay aggregated responses to discuss outliers. AV: Interviews with peer group, on issues with defence TEL policy and defence strategy for ICT. Challenges for BIM in defence.	Locate the CL progress on the expansive cycle. Continue with disturbance diaries for aggravation of contradictions. Relate disturbances to specific contradictions.	6. Taking action	Whole group in IT suite L2-036. Convening as a whole group following sessions as sub-groups. Blame and responsibility for sustenance / reversal are likely to be discussed.	[20201111 Moffitt CL models tools mirror session 12](#)
13th	19-Jul-21	6. Reflecting	All previous AV data from CL sessions and mirror material.	Issues with peer group focus on reflection and consolidation.	What would you pass on to the next cohort for a similar intervention?	Expansive cycle to re-iterate the back-and-forth nature of change . Whole-group SWOT and DEEPLIST model of change, AAR frameworks and 7 Questions analyses: "Lessons learned in TEL".	Provoke reflection: re-present a synopsis of all previous mirror material and stimuli in chronological order of the intervention. Archives of all previous mirror data to be available. AV: Command Group interview. Challenges for RSME and PEW policies, strategies and SOPs.	Points for After-action review and reflections on effects of transformative agency. Complete a DEEPLIST and SWOT analysis of progress to date in CL sessions.	6. Taking action	Whole group in PEW Seminar room. Consider sensitivity to cyclicality and temporality of roles: lecturers serve longest, then managers, then learners.	[20201111 Moffitt CL models tools mirror session 13_14](#)
14th	02-Aug-21	7. Consolidating	All previous AV data from CL sessions and mirror material.	Assurance of ongoing support for agentic outcomes.	How do we influence PEW and RSME policies for sustenance?	RSME QA plans; PEW directives; Deming cycle . Exercise: "What was not learned?".	Provoke consolidation: all previous mirror material and lessons identified from implementation to be available. Archives of all previous mirror data to be available.	Reflections on what was expected and what was unexpected. AAR and anonymised LI survey. Note availability of follow-up support and how to access it.	All	Whole group in PEW Seminar room. Transferral of ownership of consolidation; researcher-interventionists are leaving.	[20201111 Moffitt CL models tools mirror session 13_14](#)