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| **Theory Cluster** |  |
| **Complicated Systems** | **Complex Systems** |
| Linear | Non-linear (inputs and outputs not directly correlated) |
| Noise, tension and fluctuations suppressed | Opportunity seen in tension, noise and fluctuations |
| Solution as external to system | Solution as part of system |
| Adaptation is to a static environment | Interaction with the rest of a dynamic environment |
| **Casualty Cluster** |  |
| **Complicated Systems** | **Complex Systems** |
| Simple causality | Mutual causality |
| Designed and intended outcomes | Adaptive and emergent outcomes |
| Deterministic | Probabilistic |
| Certainty | Uncertainty |
| Assumed predictability | Recognized elements of non-predictability |
| Focus on boxes | Focus on arrows |
| Structures determine relationships | Structures and relationships are interactive |
| **Evidence Cluster** |  |
| **Complicated Systems** | **Complex Systems** |
| Reductionism/analysis | Holism/synthesis |
| Averages dominate: outliers irrelevant | Outliers seen as possible key determinants |
| Classical economics ignores historical evidence because systems always tend towards equilibrium | History contains meaning of change and systems evolve in part based on where they have been |
| Measures of efficiency, fit and best practice | Functioning of actual relationships and feedback loops (+ve and –ve) |
| **Planning Cluster** |  |
| **Complicated Systems** | **Complex Systems** |
| Convergent thinking | Divergent thinking |
| Reductive characteristics | Emergent characteristics |
| Decision procedure as an event | Decision as emergent |
| Environmental scan | Developing insights into own practice |
| Big issue needs big change | Butterfly effect – size of change does not determine size of change |
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| Ref: http://geiselmed.dartmouth.edu/cfm/education/pdf/Article3.pdf | |