

Speeding Up Scenario Development for Games and Exercises

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Topics

- Recurring issues in the game/exercise planning process
 - Games, exercises, tabletops
 - The need for speed and efficiency
 - Scenario development issues
- Our approach to scenario development
 - Structure and process
 - Cases: Efficiency of process
- Conclusions
 - The importance of problem structuring

Why prepare this presentation?

- Our experience from planning games and exercises
 - Time is limited
 - Customers want more for less, and they want it now
 - We need to speed up & make the planning process more efficient

 - We keep repeating the same mistakes when designing scenarios
 - Slows down the process, reduces quality of results
- Our question:
 - How can we speed up the process without compromising on scenario quality?

Games and/or exercises?

- Many overlapping terms:
 - Wargames
 - Crisis management games
 - Seminar games
 - Simulations
 - Tabletops
- Supports many activities:
 - Military planning
 - Long-term, operational...
 - Exercises and training
 - Concept & doctrine testing
 - Experimentation
 - Futures studies
 - Knowledge development

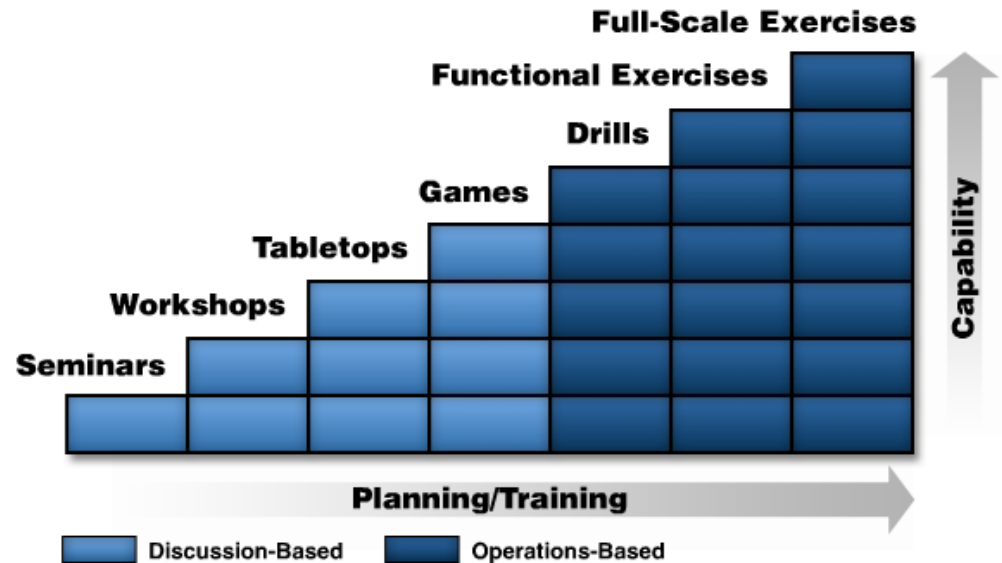


Figure: DHS (2013)

Challenge 1: Decreased willingness to pay

- “Everybody” wants tabletop games/exercises
- “Nobody” wants to pay for them
- Typical situation for us:
 - The budgets for tabletops today are **40%-70%** of those 10-15 years ago

Challenge 2:

Recurring issues in scenario development

Developer team

- Ad hoc, unstructured scenario development process
- Weak interaction with customers/stakeholders
- Uncritical re-use of old scenarios
- Not trimming the fat, overloading participants with information

Customer & stakeholder

- Want games/exercises, but do not know why
- Decide on scenario before exercise/game goals
- Pull in different directions
- Want realism & details not necessary for chosen format

Grunnan & Fridheim (2016), Grunnan & Fridheim (2017)

Our answer: Scenario development approach

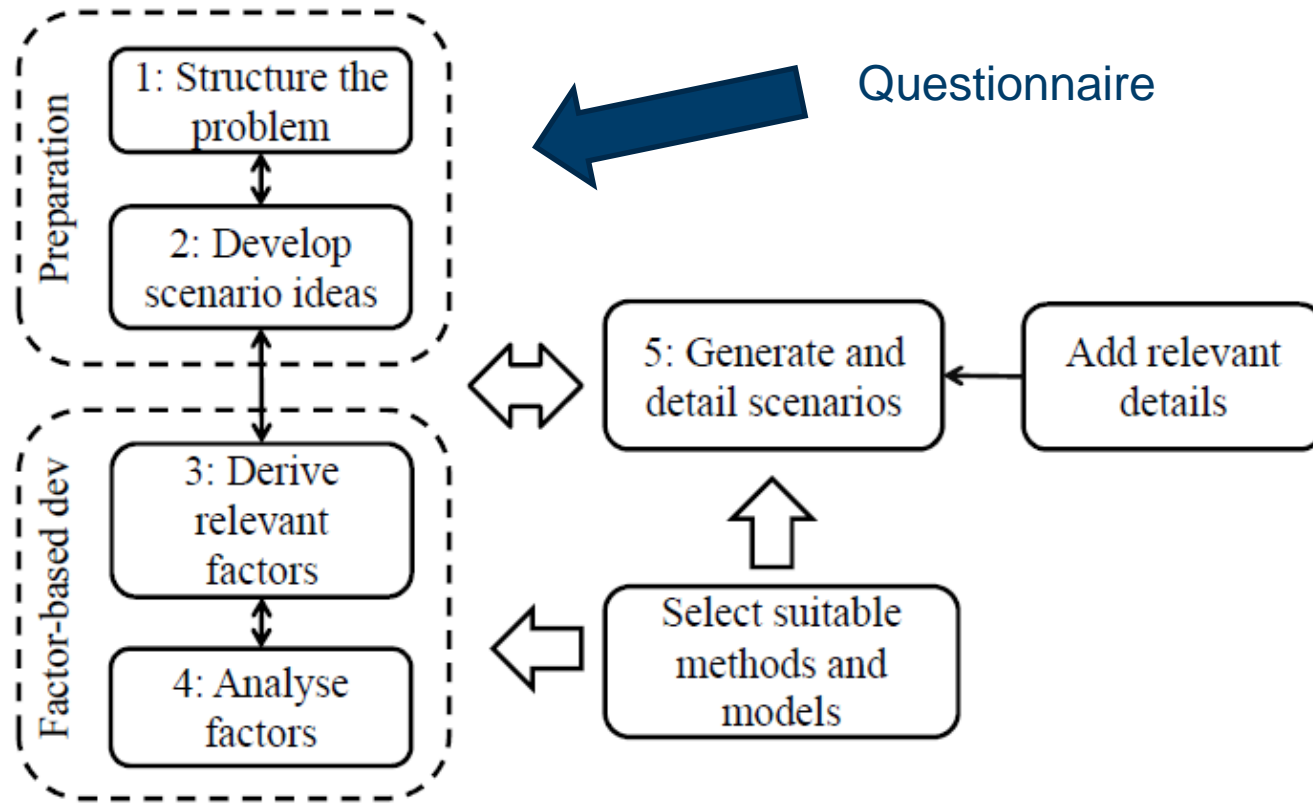


Figure 1. Process for factor-based scenario development.

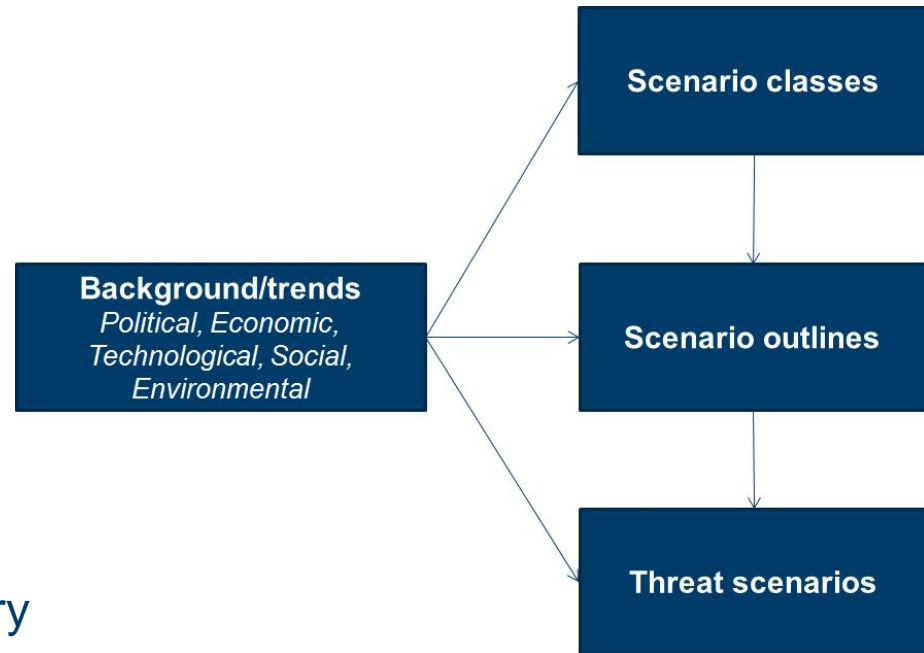
Malerud & Fridheim (2013), Malerud & Fridheim (2016)

Scenario development: Typical phases

1. Phase I: Capture the breadth of plausible future challenges
 - Morphological analysis
 - Scenario classes

2. Phase II: Develop quick, aggregated scenario ideas
 - Morphological scenario laboratory
 - Scenario outlines

3. Phase III: Select and refine the most relevant scenarios
 - Specific threat scenarios



Actor	Objective	Method
State	Regime change	Military
Network	Economic gain	Political
Enterprise	Revenge	Economic

Problem structuring: Questionnaire template

1. What's the problem?
 - Goals, users, deliverables, etc.

2. Time & resources
 - Where & when
 - Budgets
 - Necessary/available expertise

3. Content & details
 - Detail level
 - Challenges and events
 - To be included or excluded
 - Realism, time horizon, dynamic/static
 - Scenario presentation formats

Scenarioutvikling: Problemstrukturering

Hensikt: Gi innledende foringer og avklare forventninger for scenarioutviklingen

Overordnet	
Aktiviteter	Hva skal scenarioene brukes til? Hvilke aktiviteter skal de støtte? Spill/ovelse, (risiko)analyse, fremtidsstudier...
Bruker	Hvem er brukerne av scenarioene? Hva er målgruppen?
Krav og styrende dokumenter	Finnes det planer, styrende dokumenter, ordrer, foringer, etc. for aktivitetene som scenarioene skal støtte?
Output	Hva er målsettingene for aktivitetene som scenarioene skal støtte? Øvelsesmål/treningsmål, analysemaal...
Leveranser	Hva er leveransene/produktene? Rapport/notat, presentasjon, øvelse/spill...
Samarbeid	Hva er ønsket/nødvendig samarbeidsform mellom oppdragsgiver og scenarioutvikler?
Ressurser og tidsrom	
Tid	Når skal scenarioene benyttes? Når skal scenarioene være ferdige? Draftversjoner, endelig...
Budsjett	Hvilket budsjett er nødvendig?
Personell	Hvem er tilgjengelige/kan støtte scenarioutviklingen? Hvilken ekspertise er nødvendig/tilgjengelig i scenarioutviklingen?
Innhold	
Detaljnivå	På hvilke nivå skal scenarioene reise problemstillinger? Taktisk, operasjonelt, strategisk, politisk... Lokalt, sektor, nasjonalt, globalt...
	Er det behov for en felles scenariokontekst? F.eks. basert på geografiske, politiske, økonomiske, sosiokulturelle, demografiske og sikkerhetsrelaterte faktorer.
	Hvor detaljerte må scenariobeskrivelsene være? Hvilken gradering er nødvendig/ønskelig?
Utfordringer	Er det spesielle utfordringer eller problemområder som bør/skal inkluderes i scenarioene? Relevante, mulige, interessante, nye, påkrevde...
	Er det spesielle utfordringer eller problemområder som <u>ikke</u> bør/skal inkluderes i scenarioene? Dekket andre steder, for sensitive, irrelevante, usannsynlige...
Hendelser	Er det spesielle hendelser som bør/skal inkluderes i scenarioene? Er det spesielle hendelser som <u>ikke</u> bør/skal inkluderes i scenarioene?
Tidshorisont	Skal scenarioene beskrive nåværende eller en fremtidig situasjon?
Realisme	Skal scenarioene beskrive en reell situasjon og setting med reelle aktører, eller være fiktivt?
Dynamikk	Skal scenarioene være statiske eller utvikle seg over tid?
Eksisterende scenarioer	Eksisterer det scenarioer som kan brukes eller tilpasses? Finnes det historiske situasjoner som kan brukes som inspirasjon for scenarioutviklingen?
Format	Hvordan skal scenarioet presenteres for brukeren? Muntlig, presentasjon, skriftlig, mediainnslag...

Malerud & Fridheim (2013)

Efficiency case 1: Seminar game

- Same customer & type of game
 - Strategic level, ca 10 players
 - Creating new scenarios
- Good feedback on scenario quality in both exercises
- 2012 more efficient:
 - Questionnaire + initial stages of approach
 - Fewer but more specific meetings with customer
 - Early decisions on critical factors for scenario development
- However:
 - Some experiences from 2005 to draw on in 2012 (although new team)

Exercise	1	2
Year	2005	2012
Approach	Ad hoc	Structured
Budget		50% of 2005

Fridheim, Grunnan & Malerud (2017)

Efficiency case 2: Crisis management exercise (tabletop)

- Same format
 - Operations-oriented, ca 30 players
 - Tabletop
 - Adapting existing scenarios
- 2012 had better feedback on scenario quality than 2011
- 2012 more efficient:
 - Clear & compatible exercise goals
 - Less revisiting of factors
 - Scenario met the exercise goals
- However:
 - 2011 wanted a slightly more realistic game setup, lasted 6 hours longer

Exercise	3	4
Year	2011	2012
Approach	Ad hoc	Structured
Customer	Military	Civilian
Budget		50% of 2011

Fridheim, Grunnan & Malerud (2017)

Conclusions

- Impressions after following the process
 - Customer involvement is structured and efficient
 - Credible and relevant scenarios
 - Fit for purpose, tailored to exercise/game goals
 - The approach adds value for us & for customer
- Post 2012 experiences?
 - We continue to use the process
 - Experiences from recent games/exercises are in line with initial findings
 - Saves time and money
 - **Problem structuring is key**

Final thoughts

- Problem structuring is critical
 - The trick is to do it fast
- It's all common sense?
 - “Common sense is not that common”
- Games/exercise knowledge transfer is somewhat occult
 - Master and apprentice
- Sharing experiences is critical
 - Not only **how** to do it, but **what** will/will not work and **why**
 - Empirical-based studies



Picture: Star Wars Wookieepedia