Abstract

The creation of products requires many different people to cooperate. The work is often organized in teams. The team members have complimentary skills and knowledge. In many management courses the need to design teams is emphasized. Unfortunately, often these recommendations are ignored. We re-iterate in this paper the rationale for teams and the recommendations for designing the team itself.
Teams consist of complementary people

- deaf cannot hear
- blind cannot see
- mute cannot speak

But in the team two can hear, two can see, and two can speak
Organization size and teams

Human Side: Team Work
Gerrit Muller

version: 0.2
September 9, 2018
BLOATorganization
Very simplistic team model

<table>
<thead>
<tr>
<th>Team Size</th>
<th>Efficiency</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-person</td>
<td>100%</td>
</tr>
<tr>
<td>2-person</td>
<td>75%</td>
</tr>
<tr>
<td>3-person</td>
<td>50%</td>
</tr>
<tr>
<td>4-person</td>
<td>25%</td>
</tr>
</tbody>
</table>
Hierarchical simplistic team model

2-person team  eff = 75%

3-person team  eff = 66%

4-person team  eff = 62.5%

9-person team  eff ~= 56%

legend
- productive work
- communication

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HSTWhierarchicaModel
Many personality and role models are available

- **neutral facts**
- **feeling instinctive**
- **negative flaws**
- **positive benefits**
- **creative ideas**
- **process meta**

**Six thinking hats by Edward de Bono**

**Myers-Briggs Type Indicators**

- **E** Extraversion ↔ **Introversion** I
- **S** Sensing ↔ **iNtuition** N
- **T** Thinking ↔ **Feeling** F
- **J** Judging ↔ **Perceiving** P

**Belbin's team roles**

- **plant creative**
  - resource investigator
effusitive communicator
- **team worker co-operative**, averts friction
  - shaper
driver, dynamic
- **implementer**
disciplined, conservative, do-er
- **completer finisher**
  - conscientious, painstaking
- **co-ordinator mature, chairman**
- **monitor evaluator sover, analytical**
- **specialist**
single-minded, rare skills

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HSTWroles
Process of creating and using a team

Well-defined charter

What, When, Where, How, Whom
determined by the team owner

with sufficient room for the team to determine the way-of-working

output
to be respected by receivers
“War Room” is very effective
Concurrency and Fragmentation lower efficiency

How many (semi-)concurrent tasks can a person handle? Working in burst-mode (concentrating on one task for one day, week or month) can increase efficiency.

- six tasks in parallel: all results are late
- six tasks sequential: first result in 1/6 of time!
One person will be member of multiple teams

- design team product A
- roadmapping team
- Image quality team
- process improvement team
- subsystem team
- format compliance team

It is quite normal to participate in many teams simultaneously.

However, a team can only function if the members are sufficiently available!
Critical Success Factors for teams

- well defined charter
- clear owner of the result
- respect for the output of the team
- freedom of way-of-working
- housing and location
- availability of team members
- complementary roles
- diversity, pluriformity