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

1  2  4  8  16  32  64  128  256  512

- room
- floor
- building
- campus

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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>

Legend:
- Productive work
- Communication
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
Many personality and role models are available

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

**Six thinking hats by Edward de Bono**

- **neutral facts**
- **feeling instinctive**
- **negative flaws**
- **positive benefits**
- **creative ideas**
- **process meta**
Process of creating and using a team

**well-defined charter**

What, When, Where, How, Whom

output

team

determines charter

team owner

to be respected by receivers

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

Human Side: Team Work
Gerrit Muller
version: 0.2
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HSTWcharter
“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

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