Involve me and I will understand.
Managing avalanche hazard by active pedagogy to experiential learning in France.

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Abstract: Education in France is often not oriented active pedagogy, training on risk management avalanches are no exception. Practicing avalanche educators know from experience they will need a combination of lectures (‘passive learning’) and exercises or assignments (‘active learning’). The proposed presentation aims to provide an overview, feedback and perspective of different active pedagogy experiences conduct by Anena and its partners.

The « traces hivernales » conferences are built through an example of winter mountaineering trip where participants are solicited on each step of the decision making (including the presentation of tools, methods and key management strategies outputs)

During field courses, we highlight importance of skier behavior and decision making in avalanche hazard management. We use Game card on human behaviors (De Bono), or another approach based on color game referring to temperament profiles (KG Yung, adapted). Finally, we will try to implement experience (in the evening after field trip) of playing cards based on 3X3 rule based approach, coming from the Dutch Snow Safety Center.

Our ultimate goal is to go further in the involvement of Trainees in their own learning. Experiences, including cognitions, environmental factors influence there learning process. Various practical suggestions of experiential learning for avalanche educators (including avalanche rescue) will be discussed.

Keywords: conferences, field-courses, decision making, active pedagogical approach

Education in France is often not oriented active pedagogy, training on risk management avalanches are no exception. Practicing avalanche educators know from experience they will need a combination of lectures (‘passive learning’) and exercises or assignments (‘active learning’). The proposed presentation aims to provide an overview, feedback and perspective of different active pedagogy experiences conduct by Anena and its partners.

1. THE CONFERENCES/DEBATES « TRACES HIVERNALES »

Since the winter of 2009/2010, conferences / debates "traces winter" are organized under the auspices of the Anena (in partnership with SNGM) towards winter mountain practitioners. These training sessions in the evening is aimed at an audience of experienced practitioners, who already have a quite good knowledge about snow and avalanches. They are built of two complementary parts:

- The presentation of tools, methods
- The application through an example where participants hiking, BRA and topographic map in hand, are solicited.

After four years, the number of sessions to stabilize around 40 (with the involvement of a dozen guides) by touching about 1500 practitioners every winter. In addition, some media is used in the initial training of professional guides (at ENSA and EMHM).

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2. THE FIELDS COURSES "FOLLOW A TRAIL" OR "MAKE HIS MARK"

Since the winter of 2010/2011, offers a 2-day courses is implemented (in partnership with FFCAM). Through two complementary modules (course "follow a trail" or "make his mark"), decision making in the management of output is at the heart of the content. Innovative teaching approaches are proposed to forty trainers (30 professional guides or instructors

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and 10 federal) game summary sheets, small handy tools, self-assessment sheet interns.

We note at the end of two years a growing mobilization of practitioners around these courses, affecting more than 200 people this past winter.

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3. NEW DEVELOPMENT AND PERSPECTIVES

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The main project conduct by experiential learning take place in a Mountain Leader professional course. In these sessions, we are trying to respect the main experiential learning cycle (Fig. 1).

Fig. 1: Experiential learning cycle.

3.1 The first step: Technical acquisition phase experiments.

We separate trainees on 4 groups of 5 people. We organize a field trip (for 3 hours in the morning) with workshops reconstructing key situations (experiential training) with role plays involving the leader / group participants / other groups.

During this field trip, they experiment our technical abilities on beacons/avalanche rescue. Each group have to resolve on technical point:

- Protocol double test receiver avalanche transceivers,
- Organization of avalanche research
- Transceiver (DVA) research technique,
- Shovel and avalanche probe technique

In parallel of these technical point, we give different axes reflections groups on following topics:

- Criteria for decision-making related to a professional himself (group 1), group (group 2), the environment of practice (group 3) and the constraints of society (Group 4).
- Each group must interpret a winter avalanche hazard situation from an avalanche bulletin in the event of a winter hike (given context with a topographical map and photos)
- Lastly, each group must answer a quiz nivology.

3.2 The second step: transmission phase.

Each group returns to other morning technical manipulations.

3.3 The third step: knowledge acquisition stage.

From the various documents filed by the groups on issues nivology (quiz and interpretation of avalanche bulletin), trainers develop explanations answers.

3.4 Structured debriefings of these scenarios.

This stage include:

- Feedback sessions between participants (positive and negative),
- The self-assessment to measure preferences, strengths and weaknesses questionnaires.

We are trying to built an professional decision bases, inspired by Tbl. 1.

Tbl. 1: Behavioral 3x3 for leaders

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<thead>
<tr>
<th>In general</th>
<th>Leader personality</th>
<th>Leader and the others</th>
<th>Leader and his environment</th>
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<td>Self-awareness within relationship with others</td>
<td>Self-awareness within context</td>
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<td>Strengthen leader’s qualities / Minimize leader’s personal risk</td>
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<td>This morning</td>
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<td>Brief</td>
<td>Validate the project</td>
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