

# Decision trees are an effective tool to streamline the discussion with panel members in guideline committees

Nele S. Pauwels<sup>1</sup>, Emmy De Buck<sup>1</sup> and Karin Hannes<sup>2</sup>

<sup>1</sup> Belgian Red Cross-Flanders, Mechelen, Belgium,

<sup>2</sup> Faculty of Psychology and Educational Sciences, Methodology of Educational Sciences Research Group, KU Leuven, Leuven, Belgium



## BACKGROUND & OBJECTIVE

Recently, we developed an evidence-based guideline targeting volunteers assisting teachers in carrying out didactical activities with vulnerable pupils. The guideline committee included a variety of different stakeholders, with teaching or didactic experience or experience in working with the target group (i.e. at-risk children in Flanders). In a consensus meeting the panel members discussed the evidence of effectiveness of these activities, retrieved through systematic literature searches. We learned from previous guideline procedures that discussions between panel members take time. We therefore developed predefined flow charts, shaped as decision trees, that could be used by the chair to streamline the discussions about contextual issues to consider in recommending strategies, and keep the focus on the topic of interest.

## METHODS

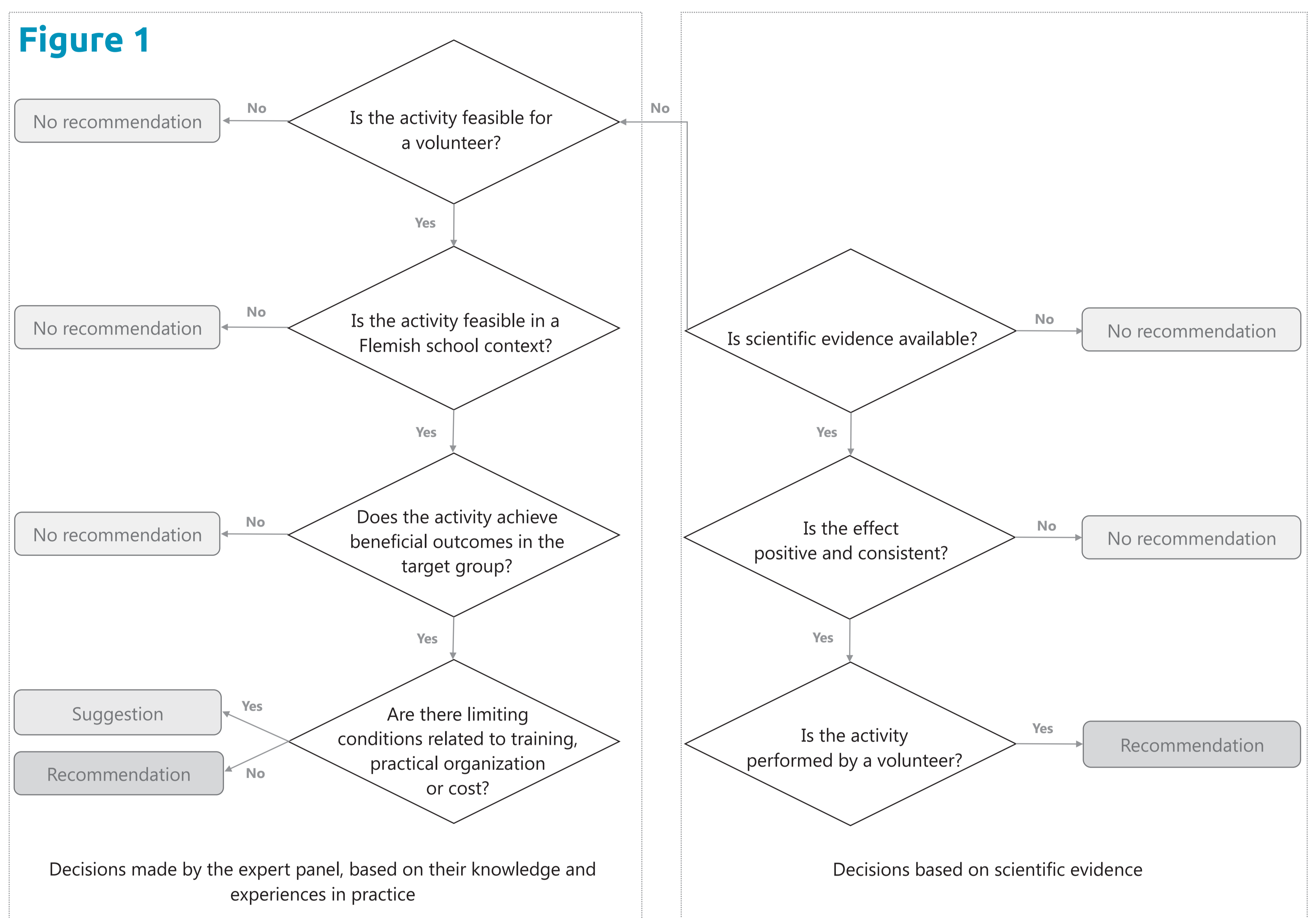
We developed decision trees based on the following questions (see **Figure 1**):

- Is there evidence?
- Is it clear and positive?
- Is the activity conducted by the right people?
- If it is not, can we extrapolate the study findings?
- Is the activity feasible in the given context?
- Is it important for the target group?
- Are there any limitations we need to consider?

Based on the answers to these questions, an activity was:

- recommended (in case no limiting conditions were present);
- suggested (in case of limiting conditions);
- or not recommended.

Figure 1



## RESULTS

- The guideline committee developed all recommendations in one session, lasting four hours, including an introduction to the project and the methodology (see **Example 1** and **Example 2**).
- The decision trees stimulated the conversation and provided a focus for discussion.

### EXAMPLE 1: Playing with toy blocks (preschool children)

The expert panel **recommended** volunteer-instructed block building activities for preschool children. This decision was based on:

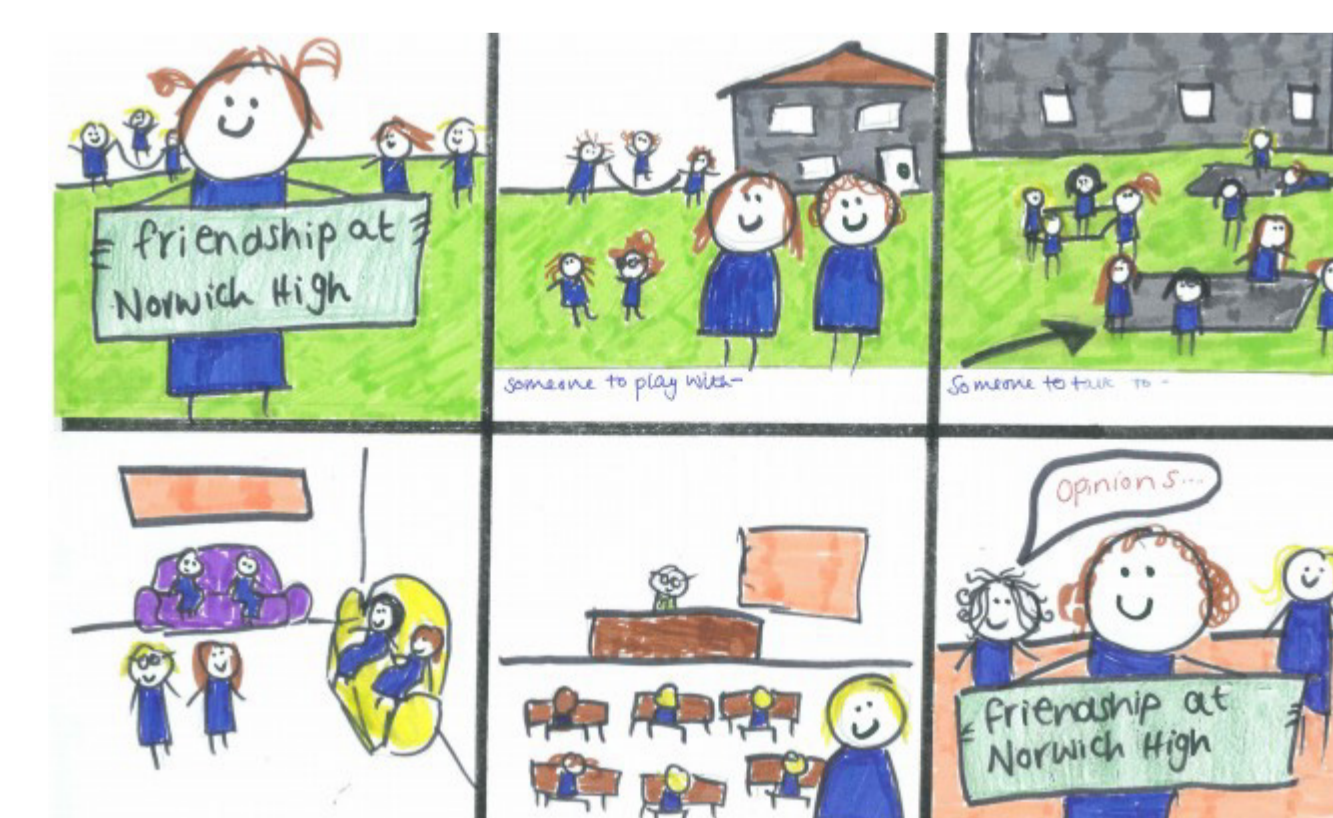
1. the positive effects on spatial skills described by Casey et al. 2008;
2. the feasibility of this activity for community volunteers within a Flemish school context;
3. the expectation that this activity will yield beneficial outcomes in the target group;
4. the absence of limiting conditions related to training, practical organization or cost.



### EXAMPLE 2: Storyboarding (primary school children)

The expert panel **suggested** volunteer-assisted storyboarding for primary school children. This decision was based on:

1. the positive effects described by Rieman et al. 2012 and 2013 and Rubman et al. 2000;
2. the feasibility of this activity within a Flemish school context;
3. the expectation that this activity will yield beneficial outcomes in the target group;
4. limiting conditions as defined by the expert panel, related to training: the expert panel indicated that the activity should be supported by a professional to avoid the use of dichotomous response categories (i.e. due to commonly used yes-no questions) during storyboarding.



## CONCLUSIONS

- Decision trees can be helpful to focus the discussion during a consensus meeting of a guideline development group.
- The template is ready for adoption by other chairs of guideline committees, in terms of their further refinement.
- After the successful use of the decision trees in one project, the use of these decision trees seems helpful but needs further validation in practice.

