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The Sustainable Backpack
*Implementation of Education for Sustainable
Development in Norwegian schools*

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Content

- The Sustainable Backpack - aim and background
- Education for Sustainable Development in the Sustainable Backpack
- Discussion of possibilities and challenges

Sustainable backpack

- to promote pupils and students understanding and awareness of sustainable development and global environmental challenges
- to give them competencies which can help them to find solutions to current and future environmental problems



Strategy plans for Education for Sustainable Development



UNESCOs International Implementation Scheme for the Decade of ESD

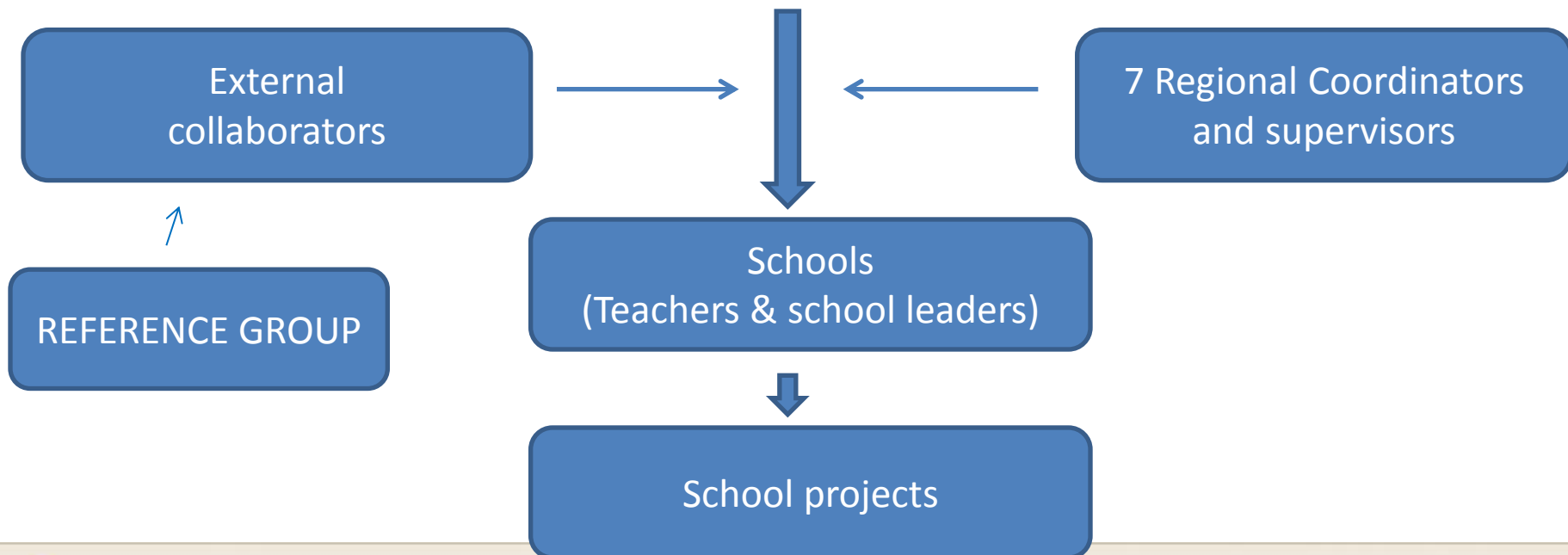
Norwegian Strategy plan for the ESD 2005-2010 & 2012-2015



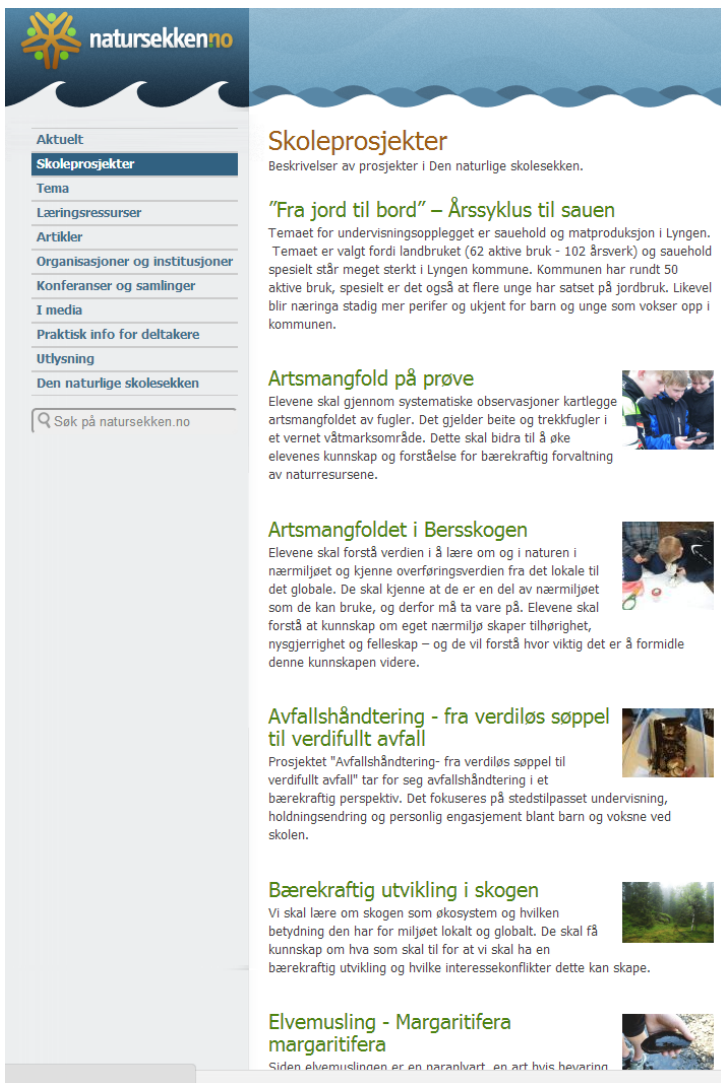
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School projects 2013/14



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Aktuelt
Skoleprosjekter
Tema
Læringsressurser
Artikler
Organisasjoner og institusjoner
Konferanser og samlinger
I media
Praktisk info for deltakere
Utlysning
Den naturlige skolesekken


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Skoleprosjekter

Beskrivelser av prosjekter i Den naturlige skolesekken.


"Fra jord til bord" – Årssyklus til sauen

Tematet for undervisningsopplegget er sauehold og matproduksjon i Lyngen. Tematet er valgt fordi landbruket (62 aktive bruk - 102 årsverk) og sauehold spesielt står meget sterkt i Lyngen kommune. Kommunen har rundt 50 aktive bruk, spesielt er det også at flere unge har satset på jordbruk. Likevel blir næringa stadig mer perifer og ukjent for barn og unge som vokser opp i kommunen.




Artsmangfold på prøve

Elevene skal gjennom systematiske observasjoner kartlegge arts mangfoldet av fugler. Det gjelder beite og trekkfugler i et vernet våtmarksområde. Dette skal bidra til å øke elevenes kunnskap og forståelse for bærekraftig forvaltning av naturressensene.




Artsmangfoldet i Bersskogen

Elevene skal forstå verdien i å lære om og i naturen i nærmiljøet og kjenne overføringsverdien fra det lokale til det globale. De skal kjenne at de er en del av nærmiljøet som de kan bruke, og derfor må ta vare på. Elevene skal forstå at kunnskap om eget nærmiljø skaper tilhørighet, nysgjerrighet og felleskap – og de vil forstå hvor viktig det er å formidle denne kunnskapen videre.




Avfallshåndtering - fra verdiløs søppel til verdifullt avfall

Prosjektet "Avfallshåndtering- fra verdiløs søppel til verdifullt avfall" tar for seg avfallshåndtering i et bærekraftig perspektiv. Det fokuseres på stedstilpasset undervisning, holdningsendring og personlig engasjement blant barn og voksne ved skolen.



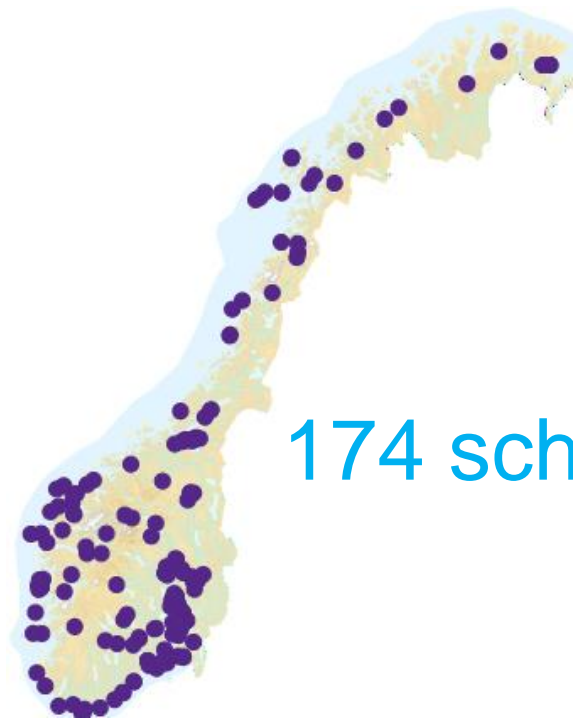
Bærekraftig utvikling i skogen

Vi skal lære om skogen som økosystem og hvilken betydning den har for miljøet lokalt og globalt. De skal få kunnskap om hva som skal til for at vi skal ha en bærekraftig utvikling og hvilke interessekonflikter dette kan skape.

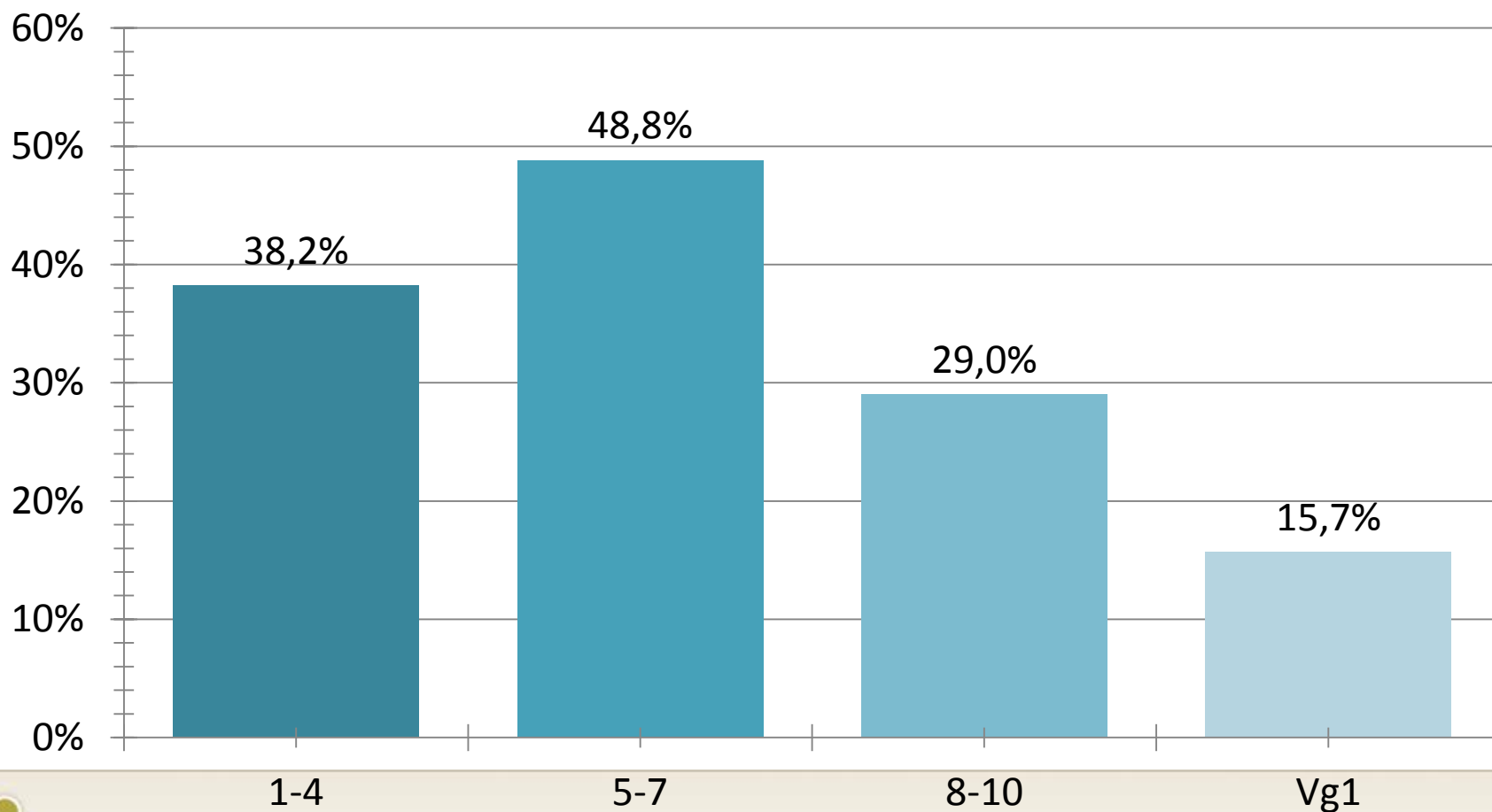


Elvemusling - Margaritifera margaritifera

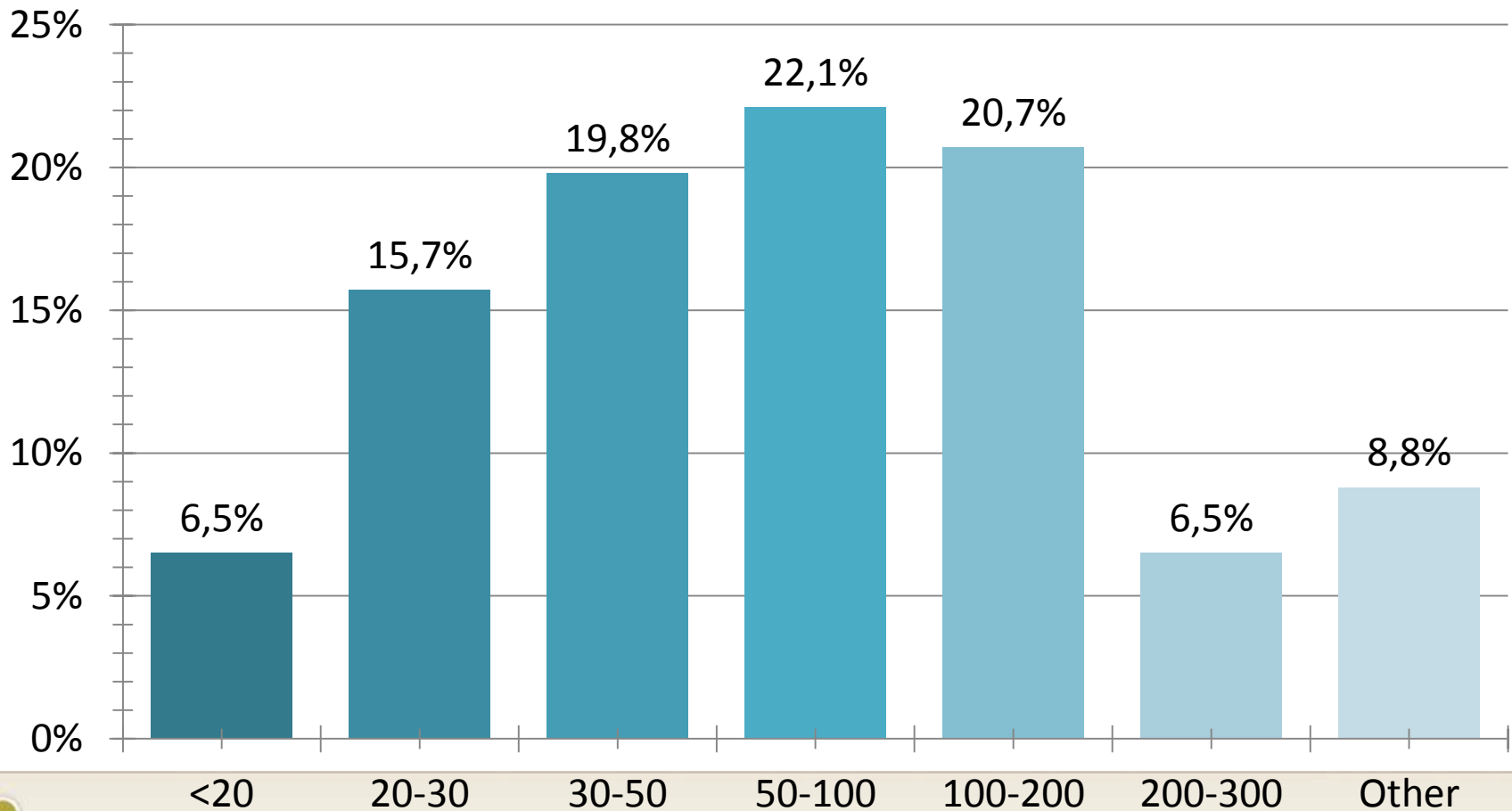
Siden elvemuslingen er en paranbart, en art hvis bevaring



Educational level



Number of students involved



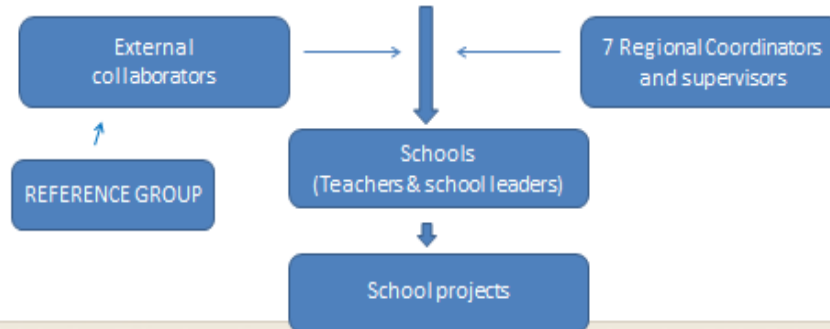
Research Questions

RQ1: What are the teachers' experiences from participating in the Sustainable Backpack?

RQ2: How is Education for Sustainable Development implemented in schools through the Sustainable Backpack?



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Data

1. Online survey answered by 287 teachers participating in the Sustainable backpack 2011/2012 (n=70) and 2012/2013 (n=217)

2. Reflection notes from teachers participating in the Sustainable backpack

Undersøttelse av lærerinformasjon og status i gjennomføringen av Den store skolesekken. Vi ønsker også informasjon om hvordan vi kan videreutvikle tiltaket. I spørsmålene under er skolens prosjekt som har hatt midler fra Den naturge skolesekken utsett som "respekt".

skoleinformasjon

1. Hvilken type skole er prosjektet forankret i?

Barneskole
Ungdomsskole
Barne- og ungdomsskole
Videregående skole

2. Hvilket årstrinn er prosjektet rettet mot?

1-4
5-7
8-10
vg1

3. Kjønn

Kvinner
Menn

4. Hvor mange elever har vært involvert i prosjektet?

<20 20-30 30-50 50-100 100-200 200-300 Other

5. Hvor mange lærere har vært aktivt med i prosjektet?

1
2

Refleksjon/tilbakemelding fra lærerne i DNS etter gjennomført prosjekt i juni 2011:

1. Hvordan har du som lærer/leder opplevd prosjektet?

Skolen har blitt bedt om å beskrive et eller flere undervisningsopplegg ved skolen og gjennomføre det med elevene:

2. Hvilke av naturekkens stider mener du er best ivarettatt i skolens opplegg? Eksempler: bærekraftig utvikling, samarbeid med eksterne aktører, grunnleggende ferdigheter. ...?

3. Hvordan mener du dette undervisningsopplegget har gitt elevene et godt faglig læringsutbytte i forhold til målene for prosjektet?

RQ1:
What are the teachers' experiences
from participating in the Sustainable
Backpack?



How has participating in the Sustainable Backpack, influenced teachers

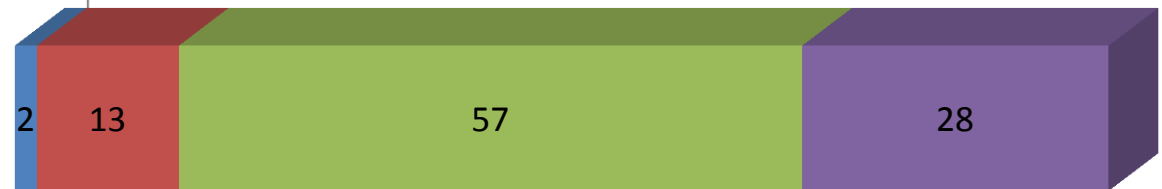


■ None ■ 2 ■ 3 ■ Large extend

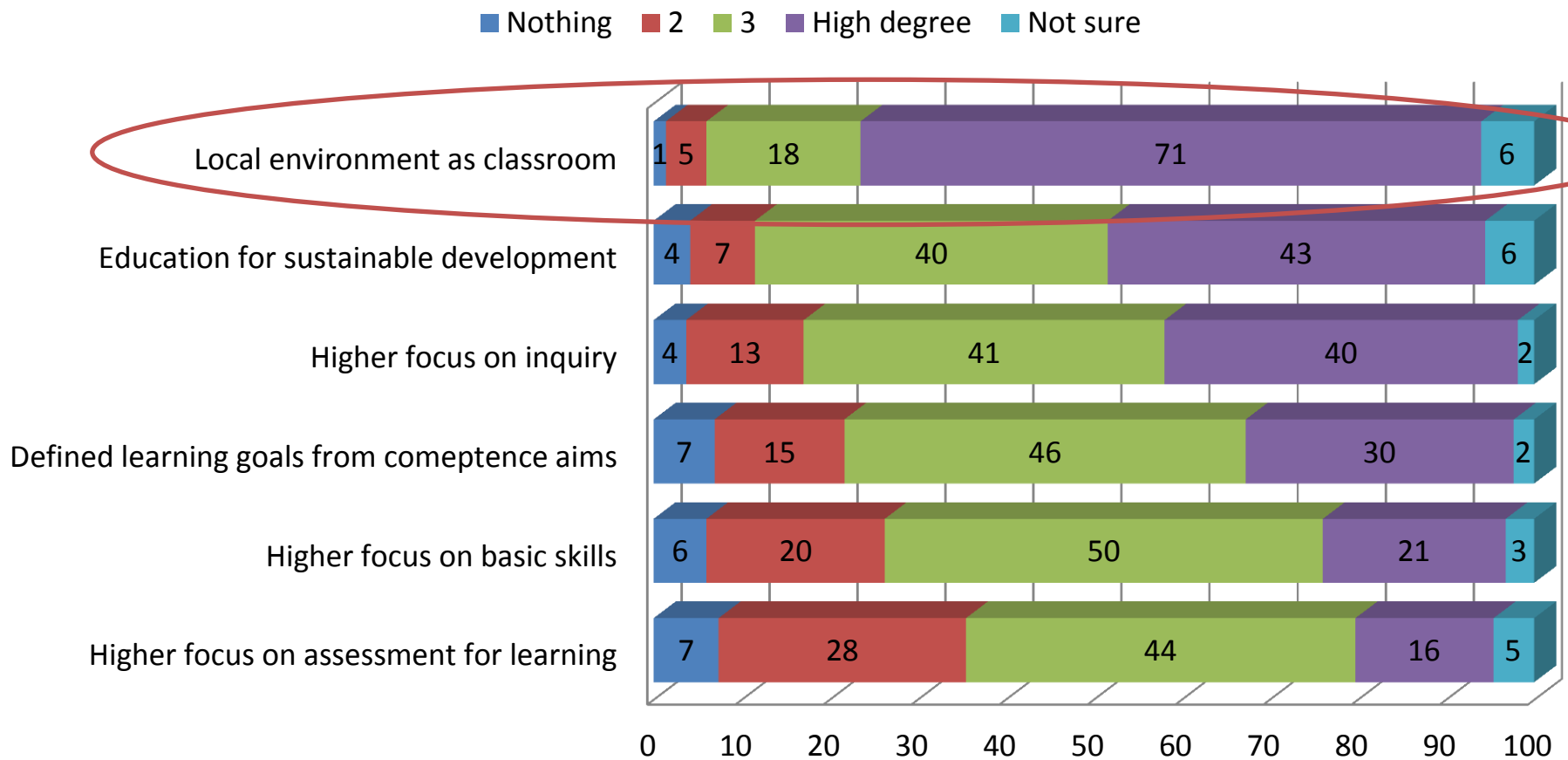
Understanding of ESD



Engagement with ESD

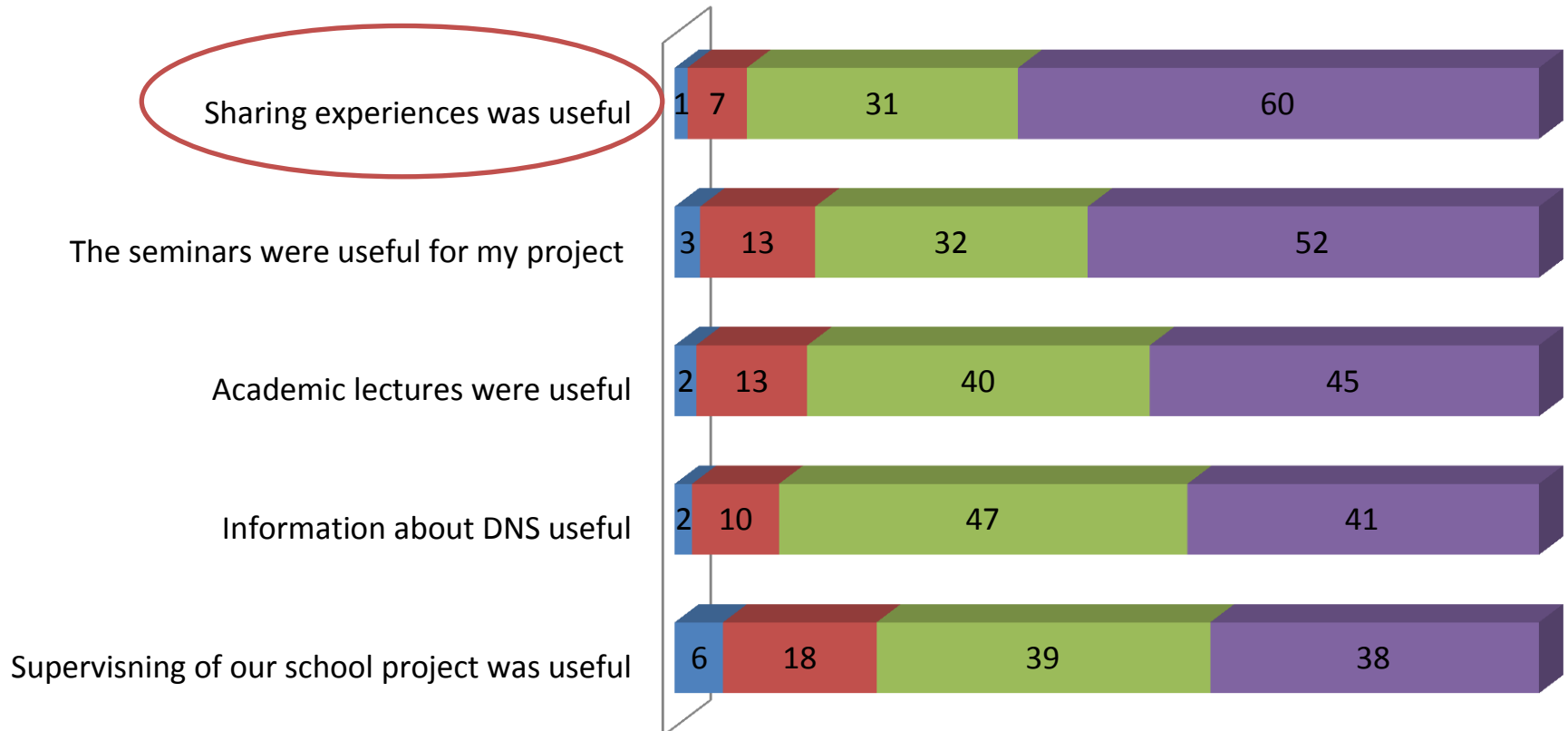


What have you emphasized more after participating in the Sustainable Backpack?

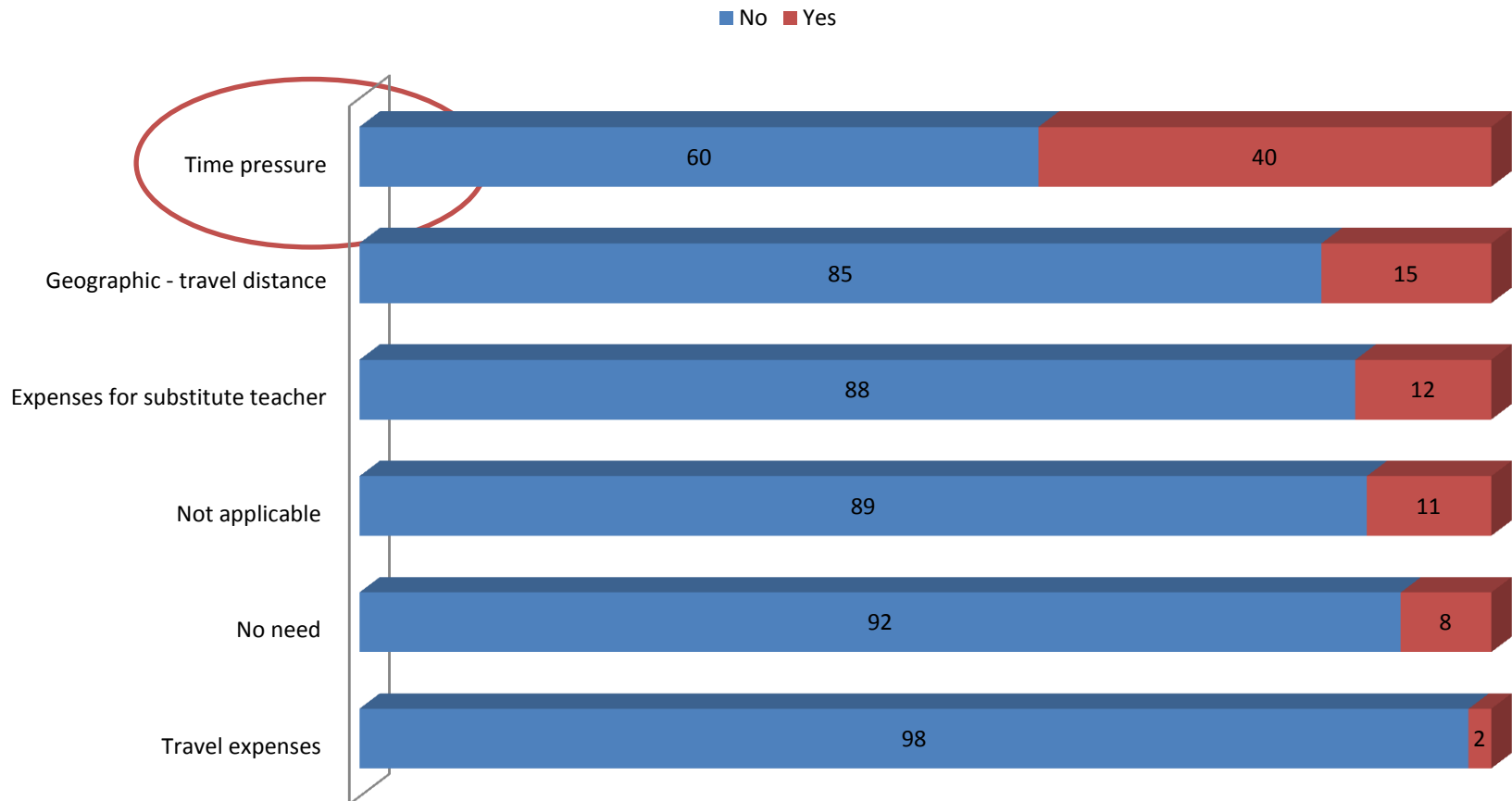


What did you gain from attending regional seminars?

■ Not agree ■ 2 ■ 3 ■ Agree



What is your reason for not attending regional seminars?



RQ2:

How is Education for Sustainable Development implemented in schools through the Sustainable Backpack?

1. Inter- or multi-disciplinary teaching
2. Assessment
3. Collaboration with external actors
4. Integration of the local environment & society

INTERDISCIPLINARY/ MULTIDISCIPLINARY

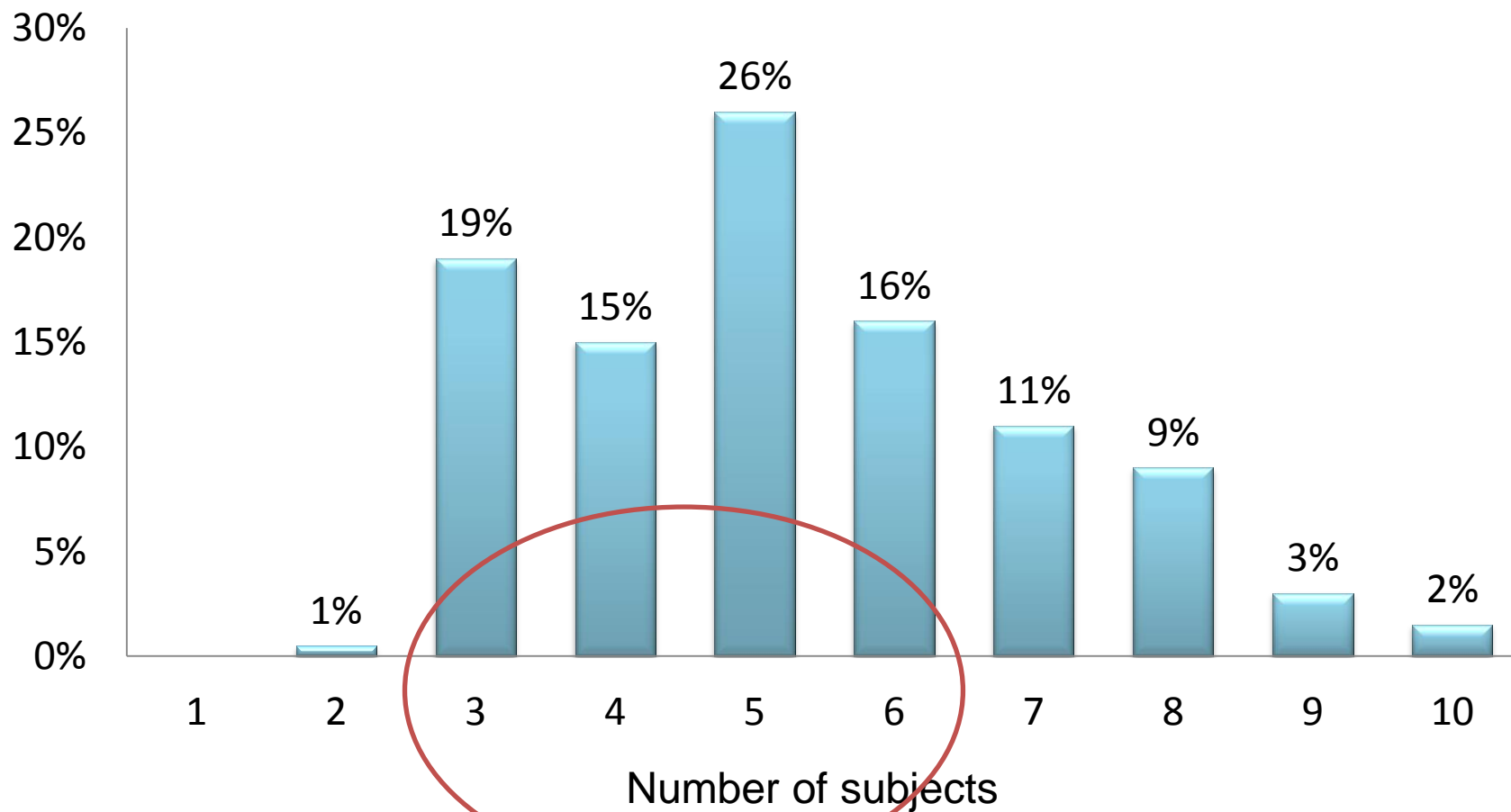


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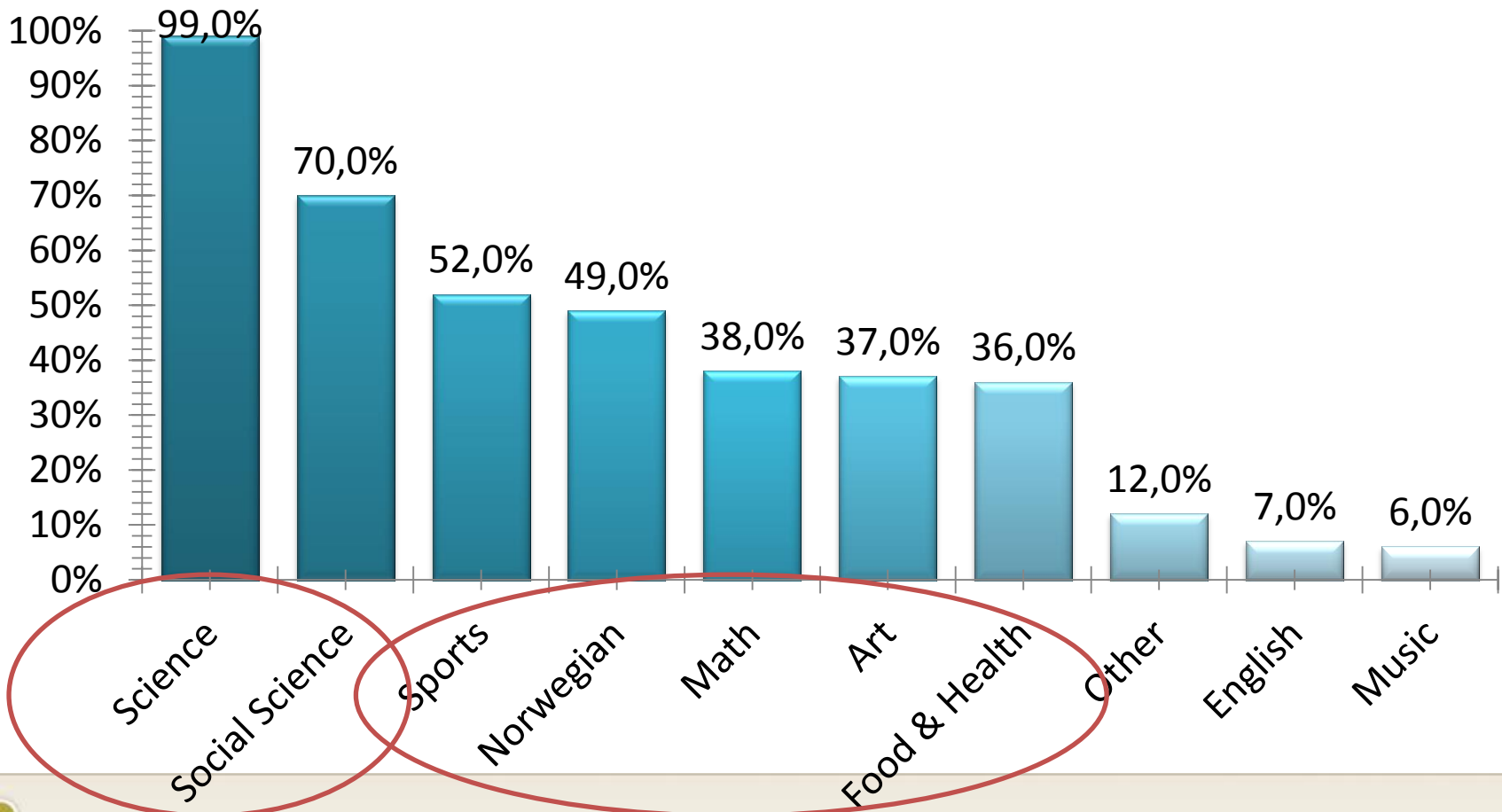


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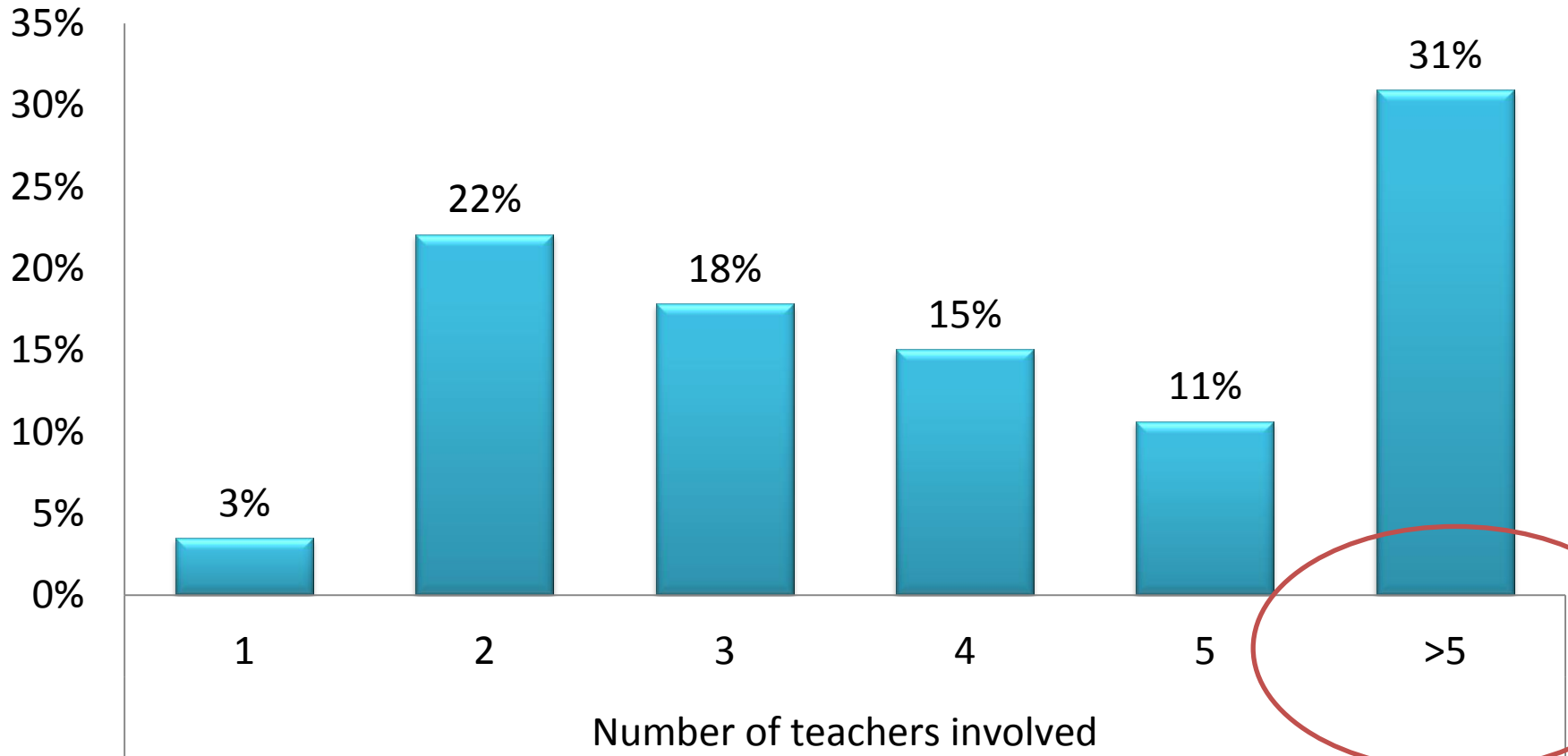
Number of Subjects Included



Subjects included



Number of Teachers Involved



ASSESSMENT

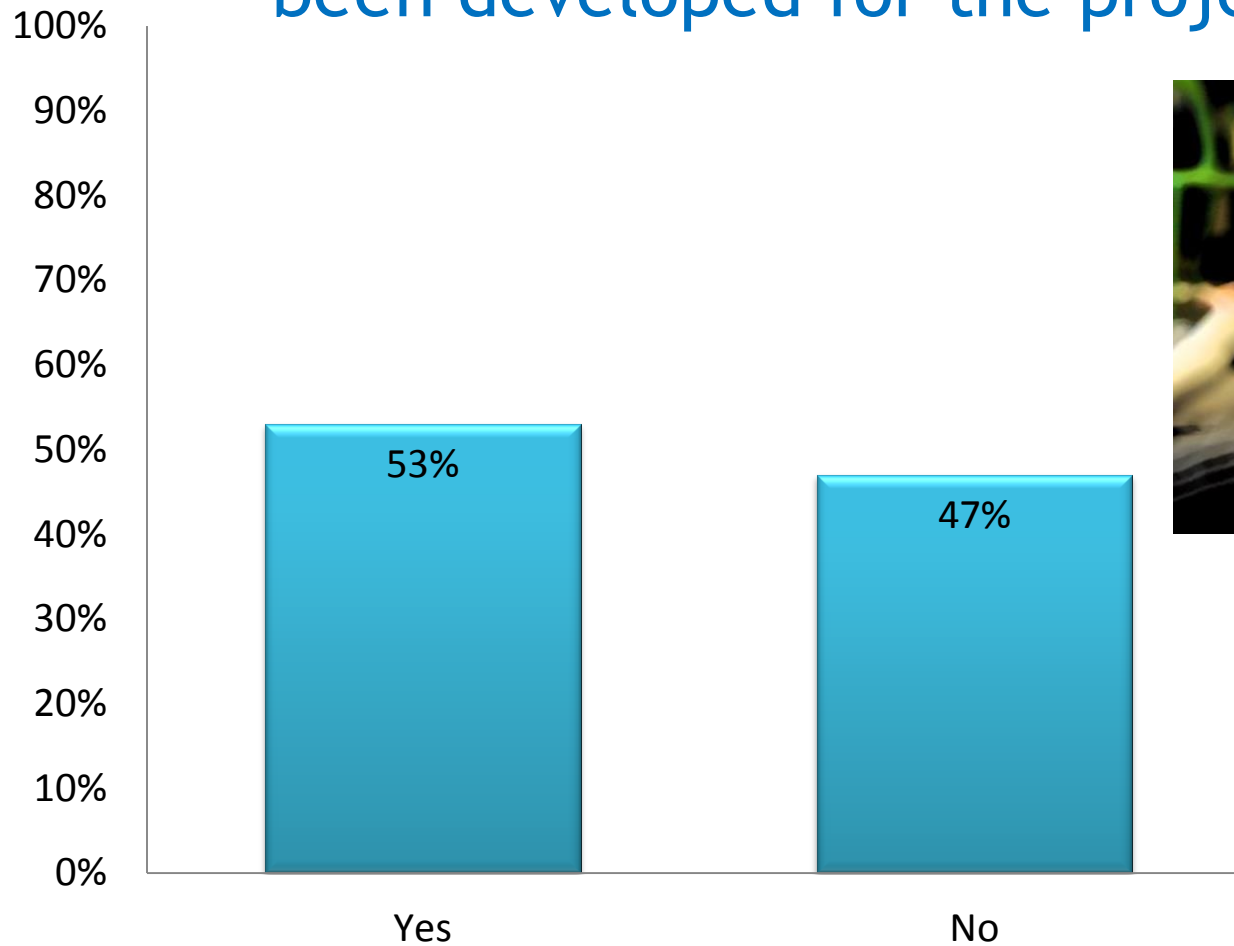


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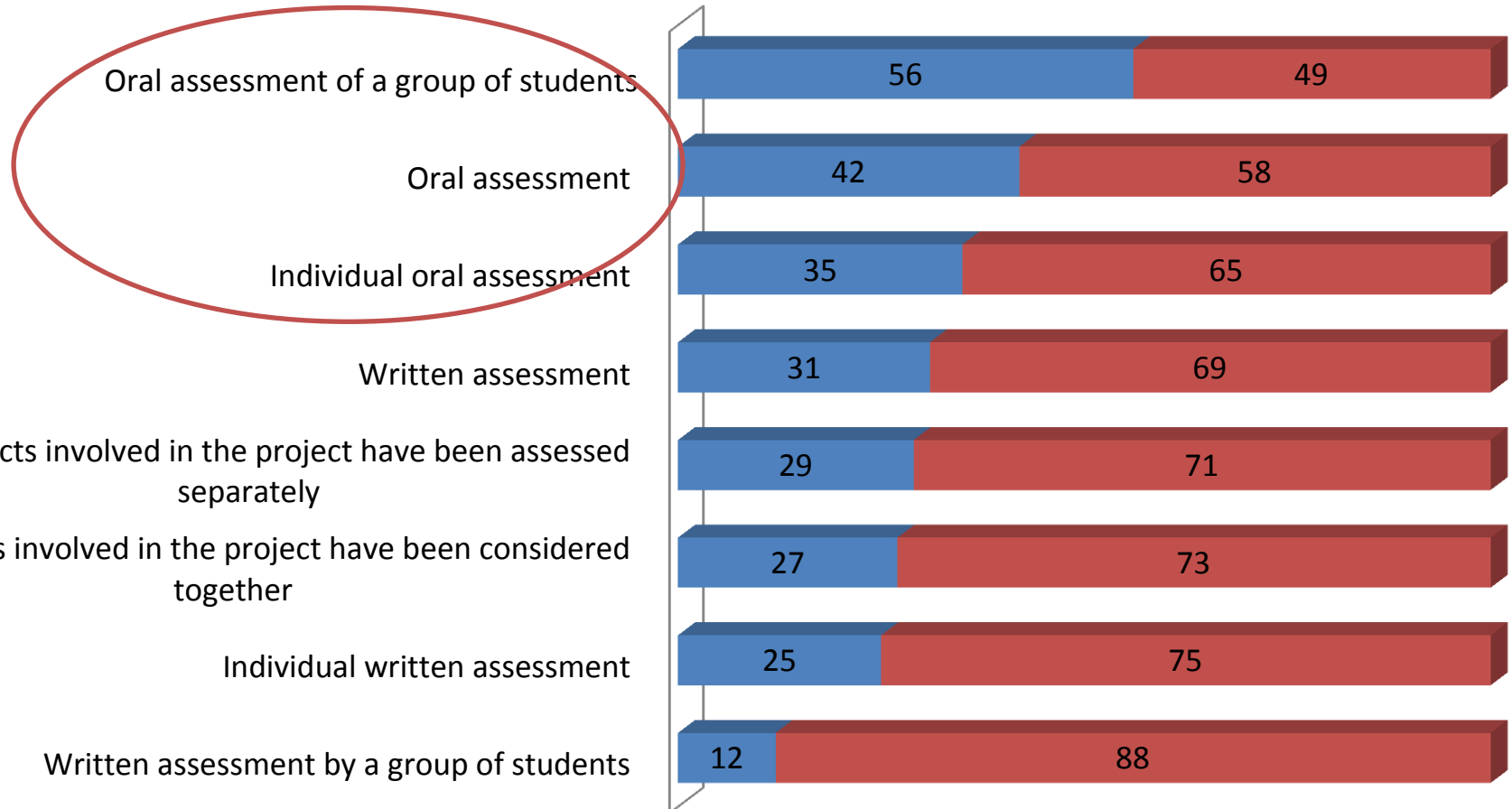
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Has assessment-criteria been developed for the project?



Assessment forms

■ Yes (%) ■ No (%)



COLLABORATION WITH EXTERNAL ACTORS

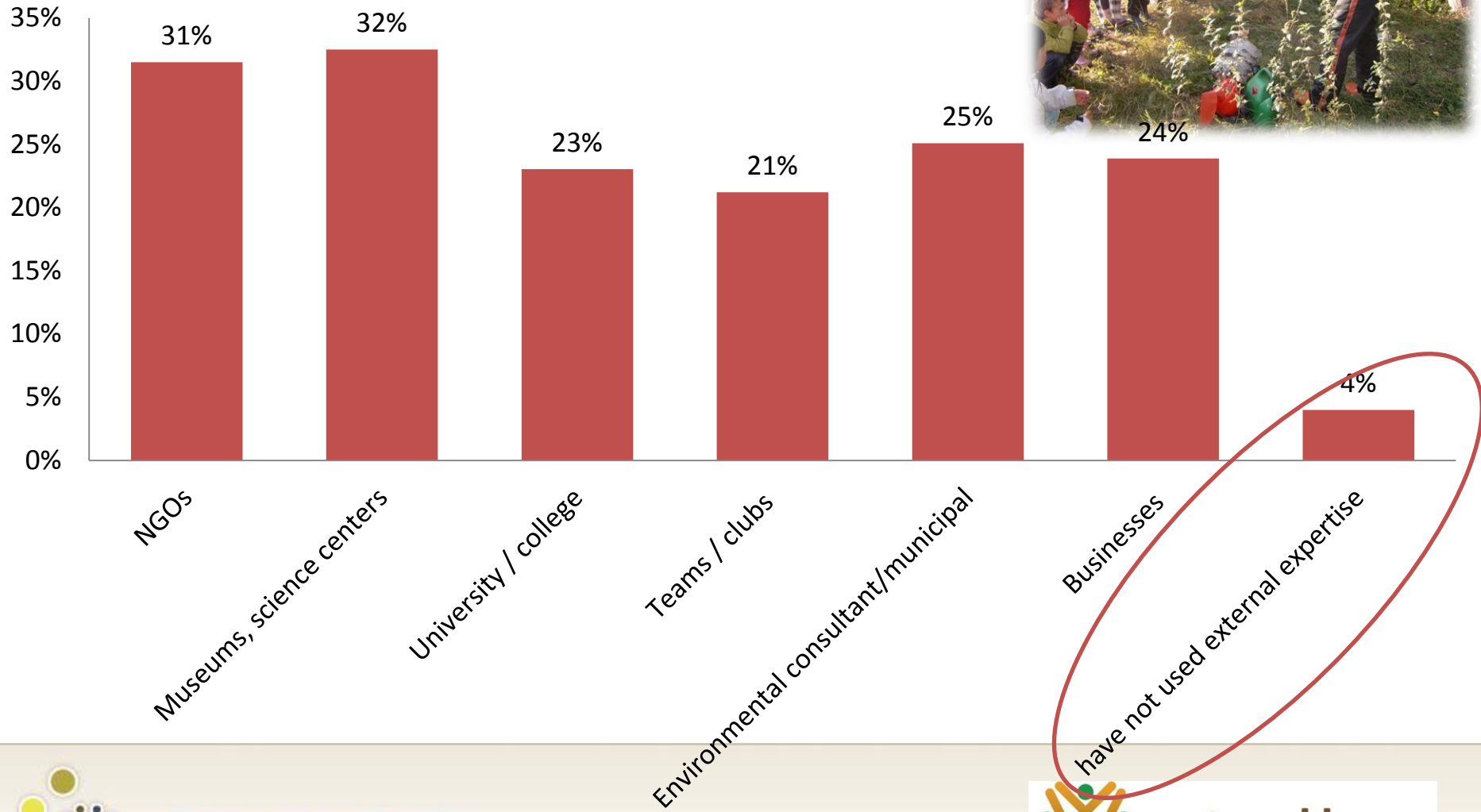


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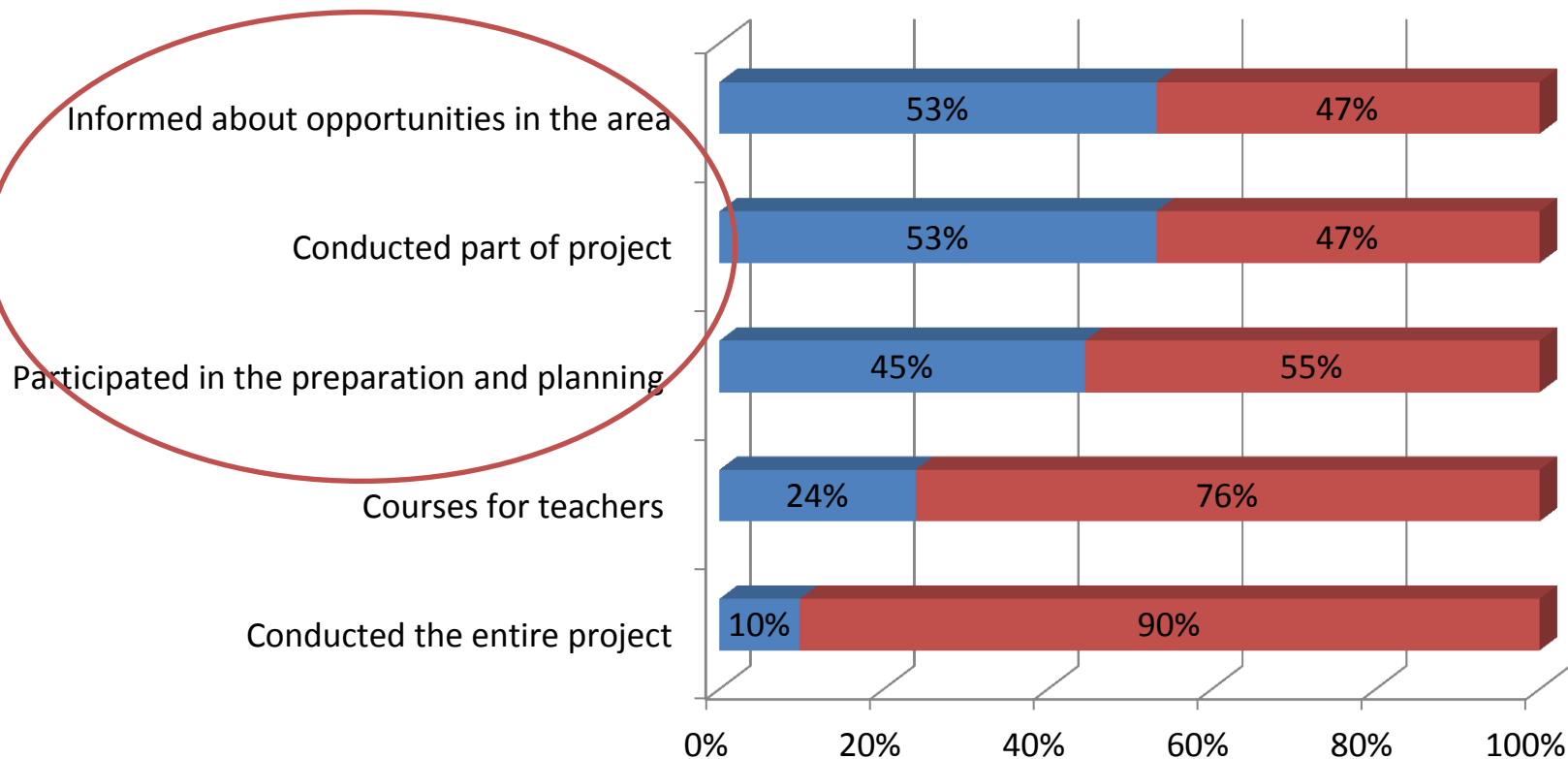


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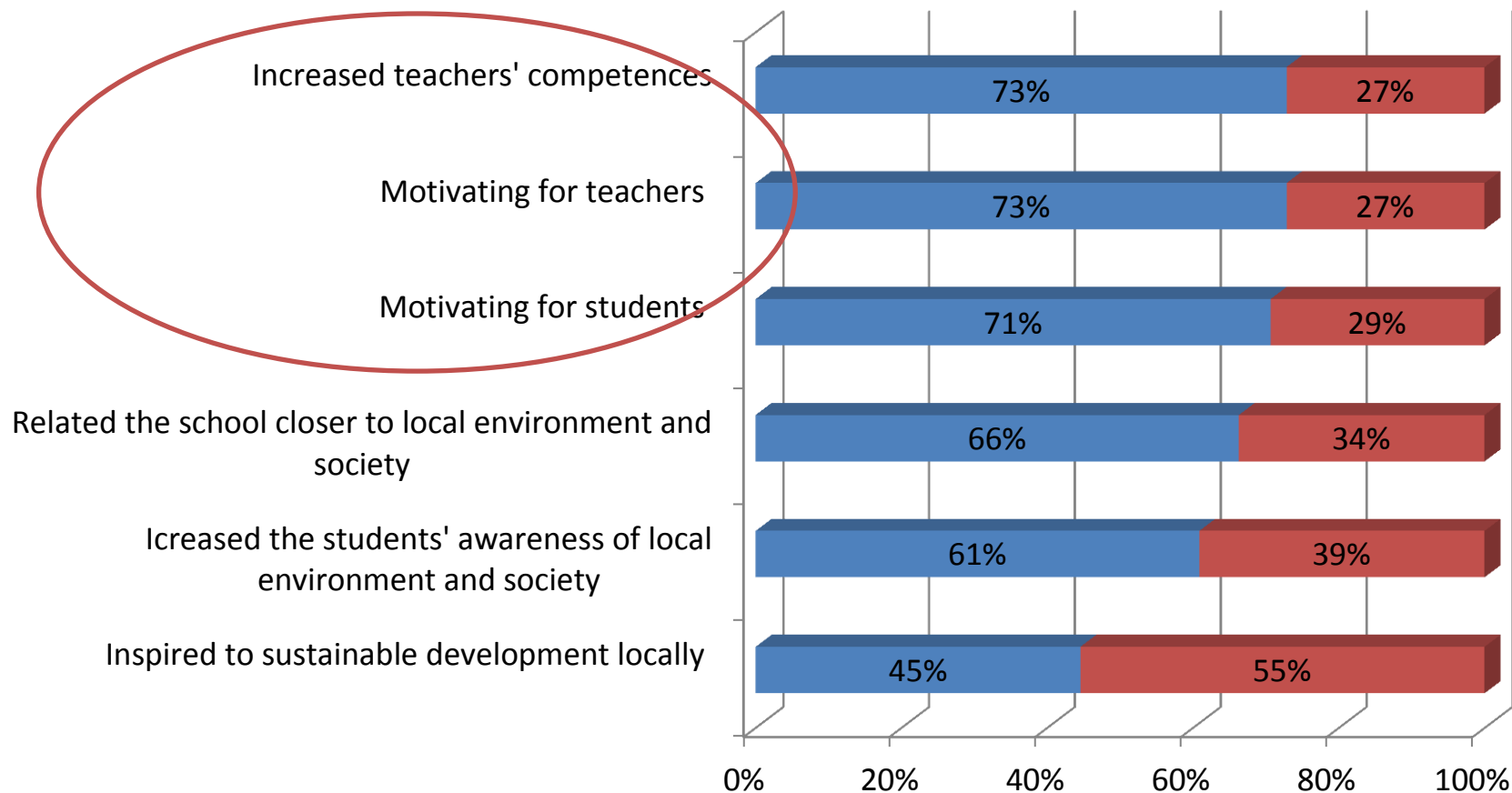
External actors



Contributions from external actors



Outcome from collaboration with external actors



LOCAL ENVIRONMENT AND SOCIETY



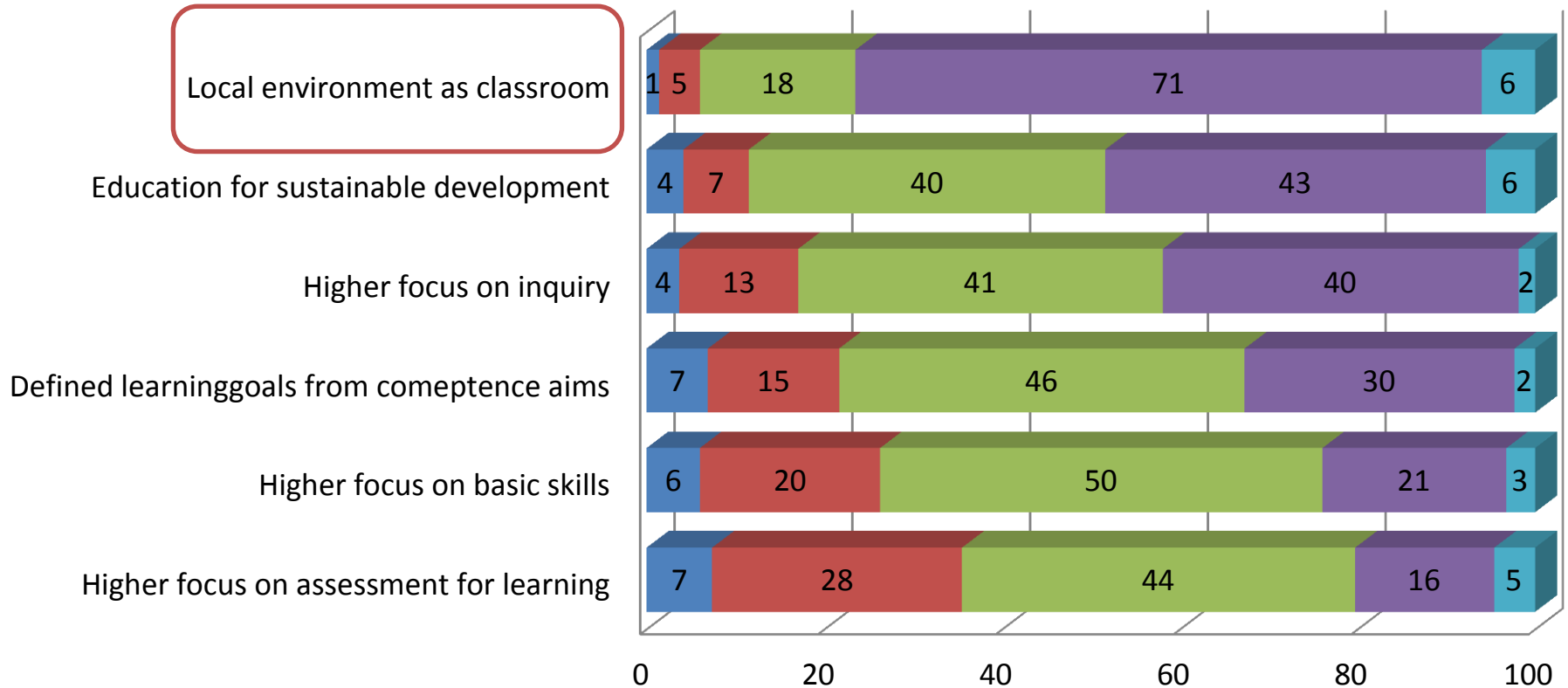
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Use of the local environment

■ Nothing ■ 2 ■ 3 ■ High degree ■ Not sure



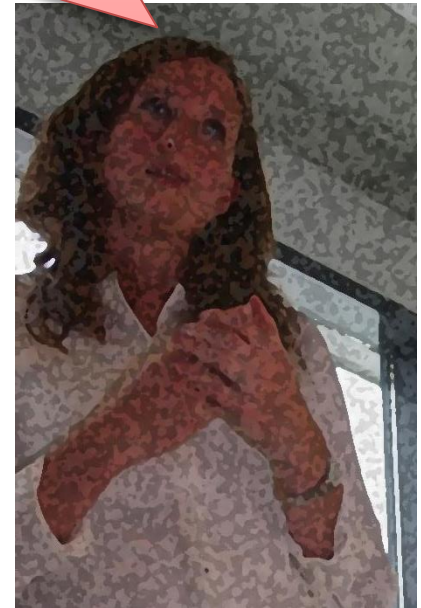
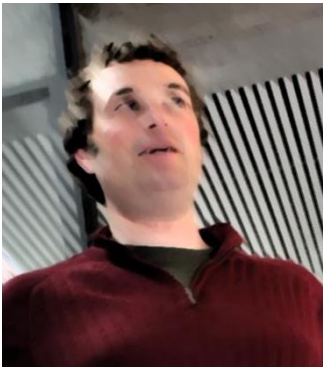
There has been a lot of work associated with this project, but it has been educational and given us an opportunity for continuing commitment to exploring our community.

The funds from the Sustainable Backpack have been the push we needed to get going. We now have many ideas as to how we can continue to develop and adapt new curricula.



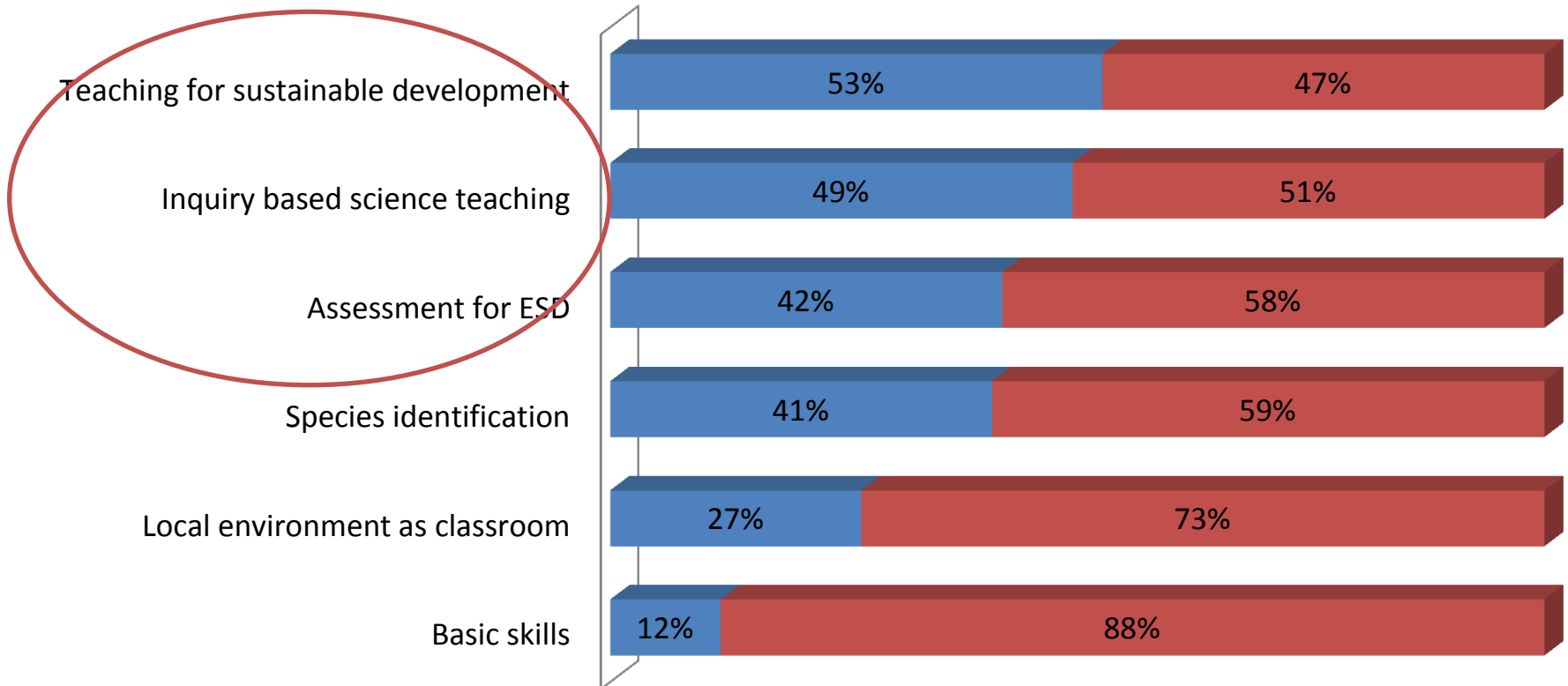
I have gained a lot from my participation in the Sustainable Backpack. It has been hectic at times, but these types of projects give a boost and increase engagement. Not at least because my students have been engaged in the project.

During our participation in the Sustainable Backpack, it has been satisfying to have the time to create a project of high quality.



Teachers' request for TPD

■ Yes (%) ■ No (%)



Summary

Teachers participating in the Sustainable Backpack report that:

- It enhances their **engagement and understanding** of sustainable development to some or large extent
- They have increased use of the **local environment** and focus on Education for Sustainable Development in their teaching
- They find **regional seminars useful**, but request more training in Education for Sustainable Development, Inquiry Based Science Teaching and assessment
- Collaboration with **external actors** had a positive influence on teacher competencies and motivation for teachers and students



Challenge



Making school projects sustainable after teachers have been participating in the Sustainable Backpack



Conclusion

These results indicate that the Sustainable Backpack has been a constructive measure on the way to **enhancing awareness and competencies** for teachers in primary and secondary education.

However, in order to succeed with Norway's strategy for Education for Sustainable Development, it is essential that multiple teachers are **engaged in and own** their school projects and are able to **incorporate good assessment practices** in both the cognitive and affective domain.

Acknowledgement

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