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Supporting Friendship Diversity Through Class List Creation

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Executive Summary

Class composition plays an important role in shaping children's friendships. This policy brief shows that more diverse friendships can be fostered by reducing the overlap between gender and other social characteristics, such as migration background, religion, or socioeconomic status, within classrooms. Drawing on data from 524 classrooms and simulation analyses, we propose a practical three-step heuristic: identify a locally relevant social category, define gender-based subgroups, and distribute these subgroups evenly across classes. The findings suggest that this approach can reduce within-group friendships and promote more diverse social ties while complementing, rather than replacing, educators' professional judgement in class assignment decisions.

Introduction

Schools are one of the most important places where young people can experience diversity in everyday life. In schools, students can exchange with peers with different cultural backgrounds, political views, and life situations, including experiences of poverty, disability, or discrimination. These encounters offer valuable opportunities to learn from one another, reduce stereotypes, and build friendships across differences.

However, schools often cannot fully realize this potential, because students with different backgrounds and experiences are often separated through sorting processes at different levels. Many drivers of this segregation lie beyond the immediate control of individual schools, such as early tracking into different school types or families' school choices. One important factor, however, is directly influenced by local educators: how students are assigned to classes.

Creating class lists is a complex and demanding task. Schools must balance many goals and constraints, often under time pressure and with limited staff. This report focuses on one key aspect of these decisions: how class assignments can support the development of diverse friendships among students.

Based on recent research, we explain why diverse friendships are more likely to develop in classes with low gender consolidation. Gender consolidation refers to the extent to which gender overlaps with other social categories, such as religion or migration background. We then discuss how this insight can be considered when creating class lists.

Why Gender Consolidation Matters

Our recent research suggests that friendship diversity can be promoted by reducing the consolidation of gender with other social categories when creating class lists. The underlying idea is straightforward.

Suppose a school aims to encourage friendships between students with and without a migration background. A common approach is to ensure that each class includes students from both groups. However, this alone is not sufficient.

Especially at younger ages, most stable friendships are formed between students of the same gender. Therefore, fostering friendships across ethnic lines requires that both students with and without migration background are represented within each gender group in a class.

In other words, the school should consider the gender consolidation of ethnicity – that is, the extent to which migration backgrounds are unevenly distributed across boys and girls.

Consider two classes:

- In the first class, most boys and their parents are born in Germany and most girls have a migration background (left side in Figure 1). Here, ethnicity and gender are *strongly consolidated*.
- In the second class, both boys and girls are ethnically mixed (right side of Figure 1). Here, ethnicity and gender are *weakly consolidated*.

In both classes, friendships primarily form within gender groups (see the networks in the lower part of Figure 1). In the first class, these friendships also tend to remain within ethnic groups due to the strong overlap between ethnicity and gender. In contrast, in the second class, same-gender friendships are more likely to be ethnically diverse.

In other words, when the gender consolidation of ethnicity is strong, friendships tend to remain within ethnic groups. When it is weaker, diverse friendships are more likely to develop.

This mechanism also applies to social categories other than ethnicity. In some schools, students' religion may play a major role in their interactions, in others, differences between students' educational and financial backgrounds. In such cases, it can be helpful to look at how these characteristics overlap with gender within classrooms.

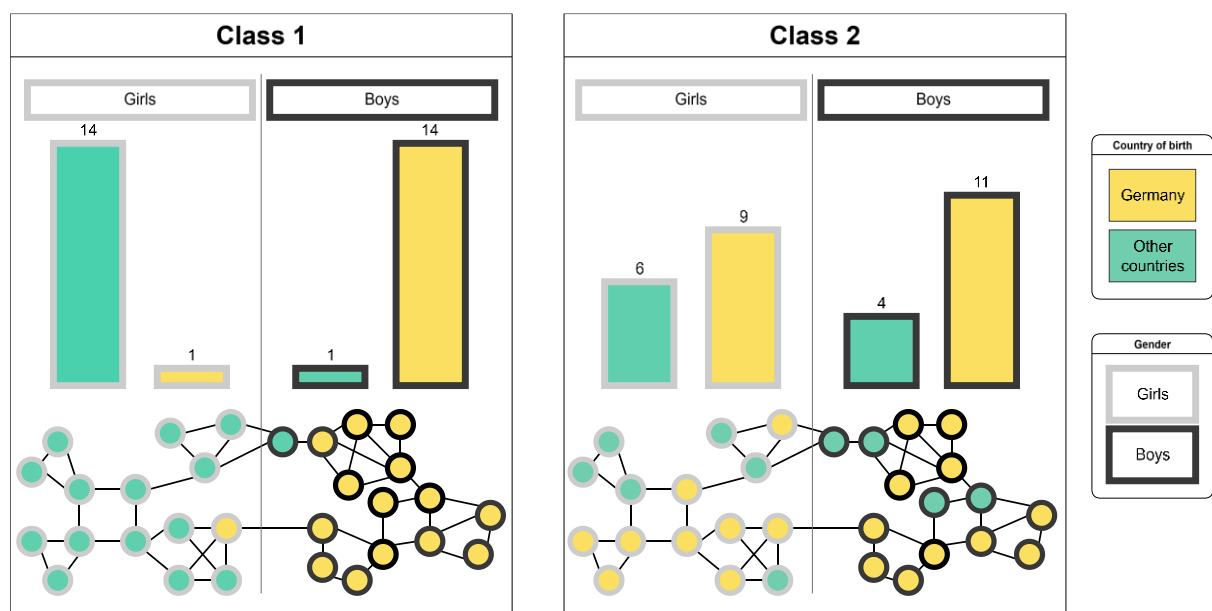


Figure 1: The ethnic diversity of student friendships when gender and ethnicity are strongly versus weakly consolidated in class. In class 1, gender and ethnicity are strongly consolidated. Here, friendships tend to remain within ethnic groups. In class 2, gender and ethnicity are only weakly consolidated. Here, friendships are more ethnically diverse.

Using data from 524 school classes in Germany, the Netherlands, and Sweden, we examined the importance of gender consolidation for friendship diversity in different student characteristics, for example religion, languages spoken at home, and parental education. Across all social categories studied, we found a similar pattern: in gender consolidated classrooms, students formed more friendships with peers who were similar to themselves. The share of such same-group friendships was, on average, more than 20 percentage points higher in the most strongly gender-consolidated classrooms compared to unconsolidated ones.

How to Consider Gender Consolidation in Manual Class List Creation?

Given the already high complexity of class assignment decisions, adding new criteria can feel overwhelming. We therefore distilled a simplified sorting heuristic from the research on gender consolidation and friendship diversity. This sorting heuristic involves three steps, visualized in Figure 2.

This approach is necessarily simplified. In practice, class list creation involves many considerations, such as background knowledge about individual students and their learning needs or conflicts between specific students. Therefore, professional judgement remains essential. The heuristic is intended as a supportive tool, not as a rigid rule. It should complement educators' experience and knowledge about their students, not replace it.

Step 1: Identify a Relevant Social Category

The proposed sorting heuristic is aimed to support more diverse friendships among students. A first key question is: Across with social differences should friendship diversity be strengthened?

We believe that the answer to this question differs between schools and that local educators are best placed to answer it, because they observe their students' everyday interactions and social dynamics. In some schools, friendships may be strongly shaped by religious backgrounds. In others, friendship cliques may be frequently structured around students' financial situation at home. In yet other contexts, students who are still learning German may find it hard to connect with classmates who speak it fluently.

The first step is therefore to reflect on which social differences are most relevant in your specific school context. This might include, for example, ethnicity, language skills, religion, educational or financial backgrounds, disability, or other factors that influence students' social lives. There is no universal "right" category. What matters is selecting a dimension that is meaningful in your school and that may benefit from more cross-group friendships.

Step 2: Create Subgroups

Next, the selected social category is combined with gender to create subgroups. For example, when focusing on ethnicity, a simplified approach could distinguish four groups:

- Boys without migration background
- Girls without migration background
- Boys with migration background
- Girls with migration background

This step is necessarily a strong simplification. Social identities are complex and placing students in boxes is particularly sensitive when it concerns topics such as ethnicity, disability, or financial backgrounds. For this reason, this step should be approached with great care. The goal is not to label

students, but to gain a rough overview of local social boundaries that would benefit from more diverse friendships.

Local educators are best equipped to judge which distinctions are appropriate and useful in their context. These simplified subgroups should be understood as a practical criterion for class list creation, not as a complete or fixed description of students.

Step 3: Balance Subgroups Across Classes

Finally, during class list creation, schools should check whether each subgroup is evenly distributed across classrooms. Focusing on subgroup balance helps to ensure that:

- Classes are balanced in terms of gender,
- Classes are balanced in terms of the selected social category,
- Gender and the selected social category overlap as little as possible within each class.

Together, these conditions create favorable structural opportunities for students to form diverse friendships.

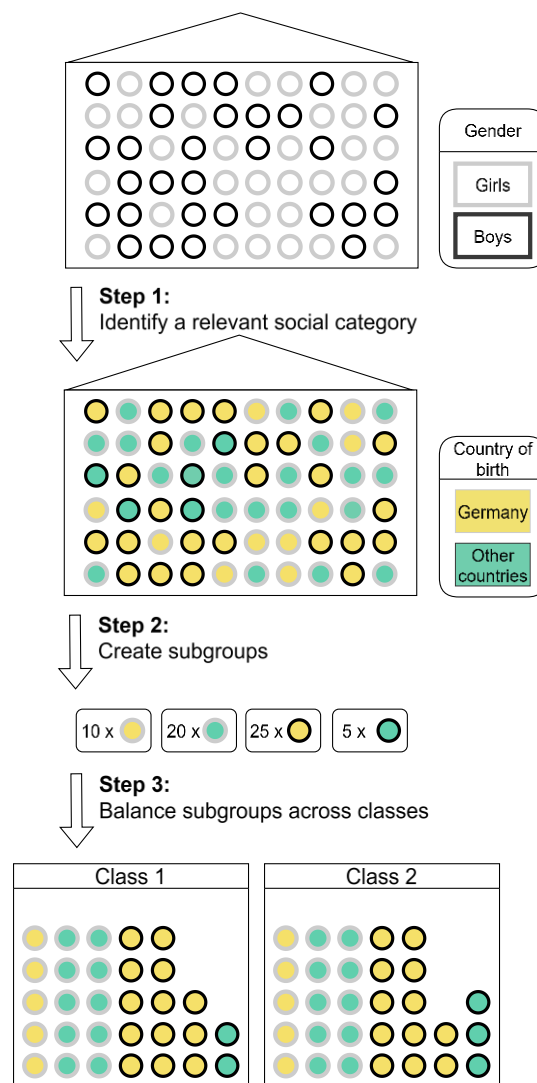


Figure 2: Sorting heuristic that minimizes gender consolidation in class assignments

Insights into the practical potential of the proposed sorting heuristic

To gain an initial idea of the practical potential of the proposed sorting heuristic, we used simulation: we compared observed class assignments in 188 schools with hypothetical ones that apply the proposed heuristic and then estimated friendship diversity in both scenarios. As before, the analyses considered several potentially important social categories.

The results suggest that the proposed approach could reduce the share of same-group friendships by around 4 to 7 percentage points. The strongest simulated effect was found for socioeconomic status. Here, the estimated share of same-group friendships decreased from 57.5% to 50.7%. Additional exploratory analyses based on simulated class assignments for observed student populations in 16,117 schools across 79 countries further suggest that the proposed approach is particularly effective in more diverse schools.

However, it is important to keep in mind that these are only simulation-based estimates and real-world effects may differ. In practice, organizational constraints can make it difficult to fully implement the proposed approach.

Conclusion and Outlook

Through their class assignment decisions, schools shape an important social environment in which friendships develop. In diverse societies, this represents an important contribution to social cohesion.

This report has highlighted one key factor: gender consolidation —that is, the degree to which social categories such as ethnicity, religion, or socioeconomic backgrounds overlap with gender in a classroom. We presented a sorting heuristic to reduce this consolidation during class list creation and outlined recent research suggesting that its application can support more diverse friendships.

To illustrate the concept and support practitioners, we provide a web application explaining the importance of gender consolidation and the proposed sorting heuristic (spins.shinyapps.io/SPINS/). The application is intended as an informational resource and is not designed for actual class list creation.

That said, in some countries, schools already use digital tools for class list creation. These tools usually allow schools to upload student data and generate optimized class lists based on a set of sorting criteria, such as balancing gender or academic performance. In some cases, schools can select or weight these criteria. The software then creates one or several ‘optimal’ class list suggestions, often with drag-and-drop options for manual adjustment.

To our knowledge, none of the existing software solutions for class list creation considers the overlap between gender and other social categories in its optimization process. This represents a major opportunity. Software providers could:

- inform users about research on gender consolidation and friendship diversity,
- include gender consolidation as an optional optimization criterion,
- collect feedback on its effects.

Scientific monitoring could then examine how the implementation of gender consolidation in class list creation influences friendship patterns, as well as outcomes such as student well-being, academic outcomes, and classroom climate. While the use of such tools may, in some countries, still be limited

by data protection concerns, well-designed software could in the long term help schools manage competing demands more efficiently in their class assignment decision.

References

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