EGO-NETWORK APPROACH IN CURRICULUM RESEARCH

Methodological and practical implications of an ego-network approach to explore curriculum making by teachers

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Key aims of this workshop

1. To give a taste of what social network analysis is about
2. To offer insights about ego-network approach and how it could be utilised in curriculum research
3. To illustrate one way of network data generation and stimulate discussion around that
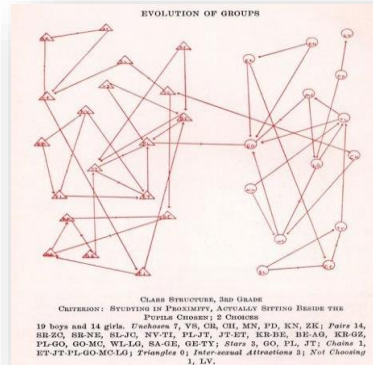
Social network analysis

- Studying interconnected patterns of relations (Bellotti 2015) to understand underlying social structures – patterns and interactions between social actors, organizations, etc. at different levels.
- A wide array of different fields of study
- A bridge between quantitative-qualitative approaches

A brief background

Jacob Moreno

1930s - A study with school children – their friendship choices and how it influences in class behavior

EVOLUTION OF GROUPS

CLASS STRUCTURE, 3RD GRADE
CRITERION: STUDYING IN PROXIMITY, ACTUALLY SITTING BESIDE THE PUPILS CHOSEN; 2 CHOICES
19 boys and 14 girls. *Unchosen* 7, VS, CH, CH, MN, PD, KN, ZK; *Pairs* 14, SR-ZG, SR-NE, SL-JC, NV-TI, PL-JT, JT-ET, KR-BE, BE-AG, KR-GZ, PI-GO, GO-MC, WL-LG, SA-GE, GE-TY; *Stars* 3, GO, PL, JT; *Chains* 1, ET-JT-PL-GO-MC-LG; *Triangles* 0; *Inter-sexual Attractions* 3; *Not Choosing* 1, LV.
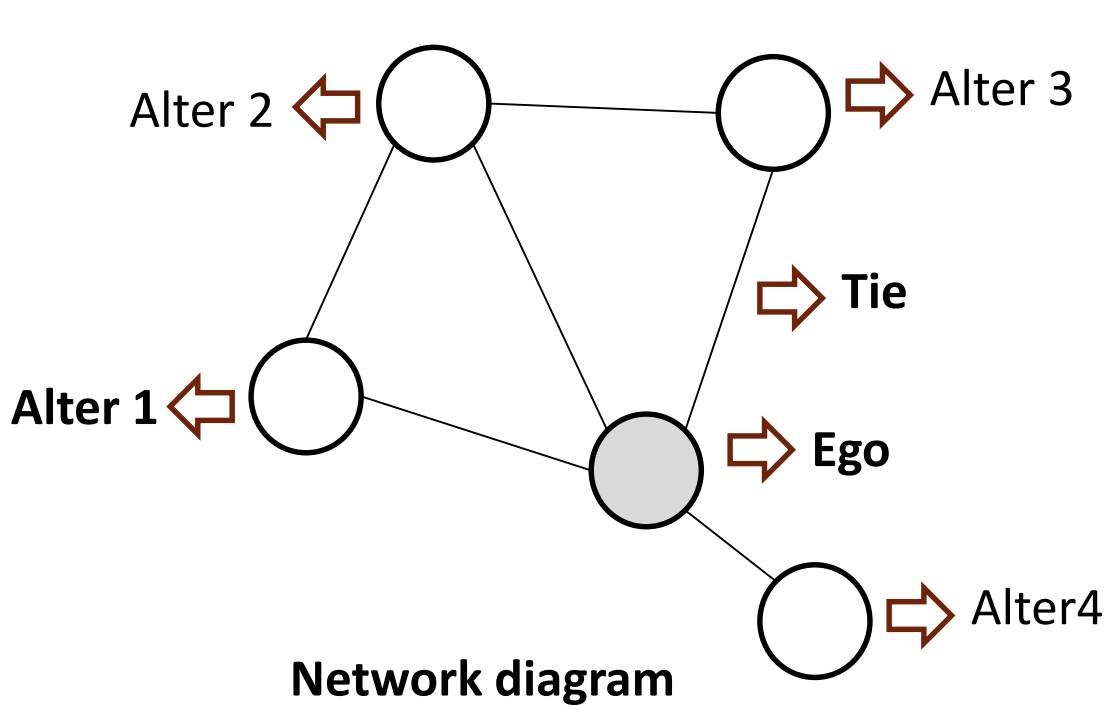
Mark Granovetter

1973 – The strength of weak ties
Strong ties – tend to get same information-consensus building
Weak ties- novel information, bridge to different resources

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A bit of terminology

Alter 2 ←

Alter 1 ←

Tie →

Ego →

Alter 3 →

Alter4 →

Network diagram

◯ **Node**

- ➤ **Size**
- ➤ **Density**
- ➤ **Alter attributes**
- ➤ **Homophily**
- ➤ **Composition**
- ➤ **Tie strength**

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Principles of a network perspective (Perry et al., 2018, p.7-12)

- Connections are a key mechanism for social action
- Networks as a bridge between different levels of society
- Four dimensions of social networks are distinct: **structure, function, strength and content**
- Network effects are a function of interactions among these four dimensions
- Network ties are not always beneficial
- More is not necessarily better
- Network across all levels are dynamic, not static structures and process
- A network perspective allows for multi method approaches

Ego-network approach

- Formed around a focal social actor and shows the connections with other alters (Crossley et al., 2015)

- 'Ego-networks are both structure – a pattern of ties that we can map out- and process – practices of social interaction that create, maintain and break tie' (Crossley et al., 2015, p.124)

- Focus on relationships, composition of the network, structure and culture of the nature of relationships

- Provide narratives about what ties and relationships mean for the social actor (the way the network is perceived (Crossley et al., 2015)

- Dynamic, non-linear and at multi-levels (Perry et al., 2018)

Advantages and limitations of ego-network approach

Advantages

- Relationships through different contexts

- Being embedded and functioning in diverse networks

- Flexible in terms of network boundaries

- Anonymity

Limitations

- Respondent burden

- Inaccurate-subjective responses

- Broader social structure may be missing

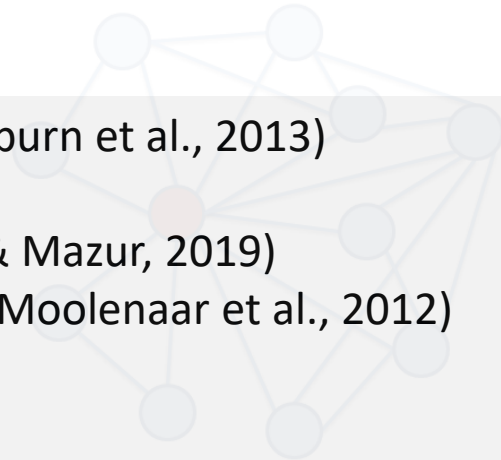Ultimately, the research questions, theoretical approach and also practicalities of research are important to decide the research design.

In what ways do you think this method can be utilized in curriculum research?

Discuss in groups

Potential contributions to curriculum research

- Target and optimize the potential of the relationships the network reveals and to understand in what ways relationships may (or not) support curriculum making

- Overview of the structure of linkages

- What resources/ideas/information shared by the network members

- Structural positions of various actors

- Which context the relationships are formed and for what purpose (e.g. tie formation)

- How composition of the network shape curriculum making practices

❑ District policy and curriculum reform (Coburn & Russel, 2008; Coburn et al., 2013)
❑ Sustainability and advice networks (Coburn et al., 2012)
❑ Formal and informal instructional support networks (Woodland & Mazur, 2019)
❑ Student achievement and connectedness of teachers' networks (Moolenaar et al., 2012)
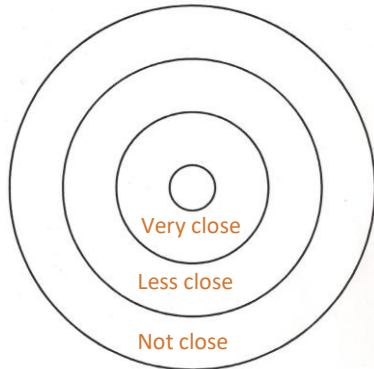❑ Trust and school improvement (Brown et al., 2016)

Data generation methods

1. **Name generators**
2. Position generators (Lin & Dumin, 1986)
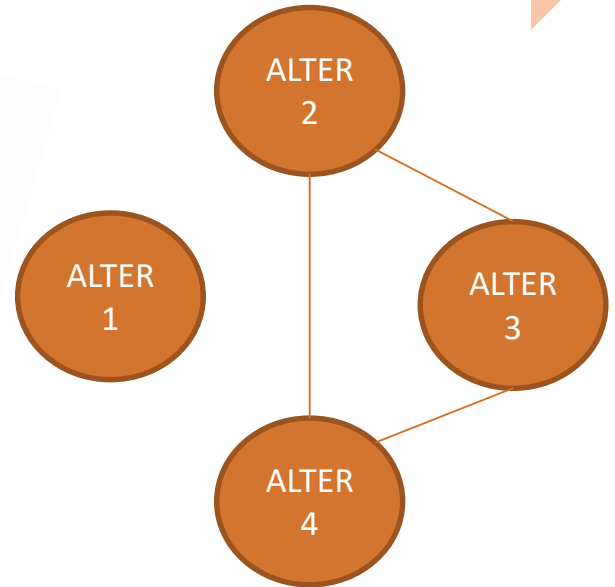3. Resource generators (Van Der Gaag & Sijders, 2003)

One example…

Name generator

Name interpreter

Name inter-relator

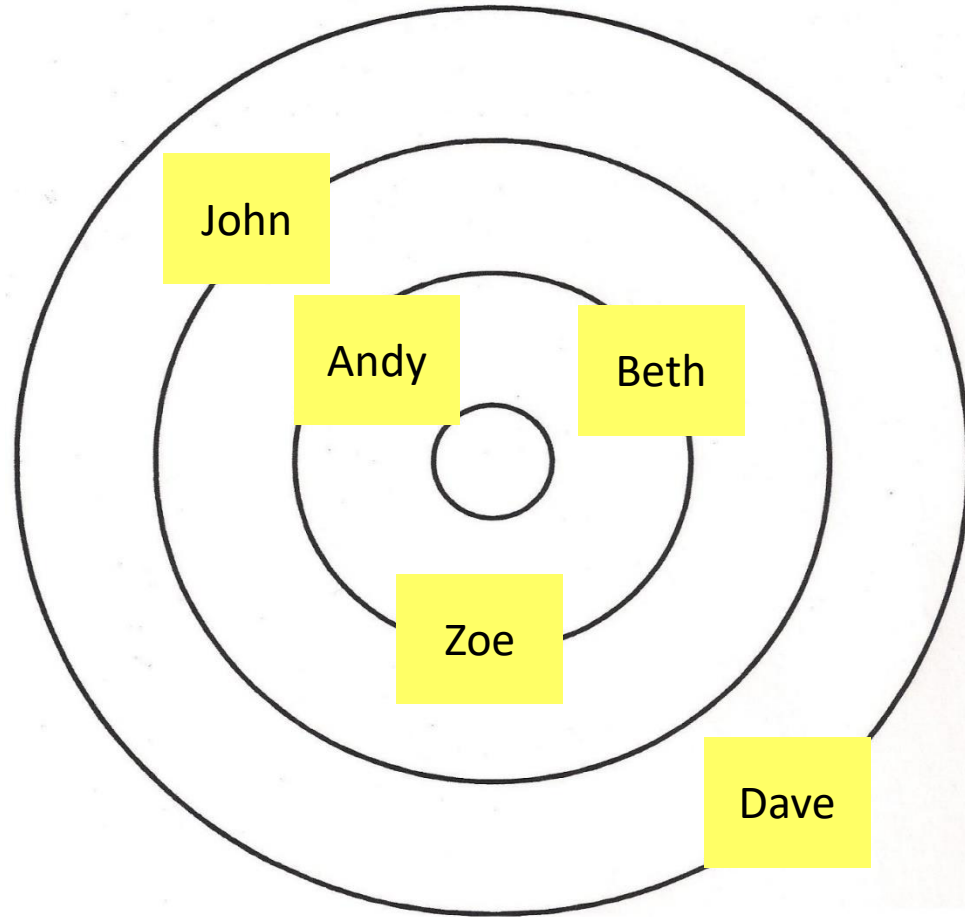ALTER 1

ALTER 3

ALTER 2

ALTER 4

Very close

Less close

Not close

ALTER 1

ALTER 2

ALTER 1

ALTER 3

ALTER 4

ACTIVITIY

- Role playing - One researcher and one teacher
- Start with the main name generator question

In this term, with whom have you talked about curriculum for advice, with a question or concern, or just to talk something through about curriculum making?

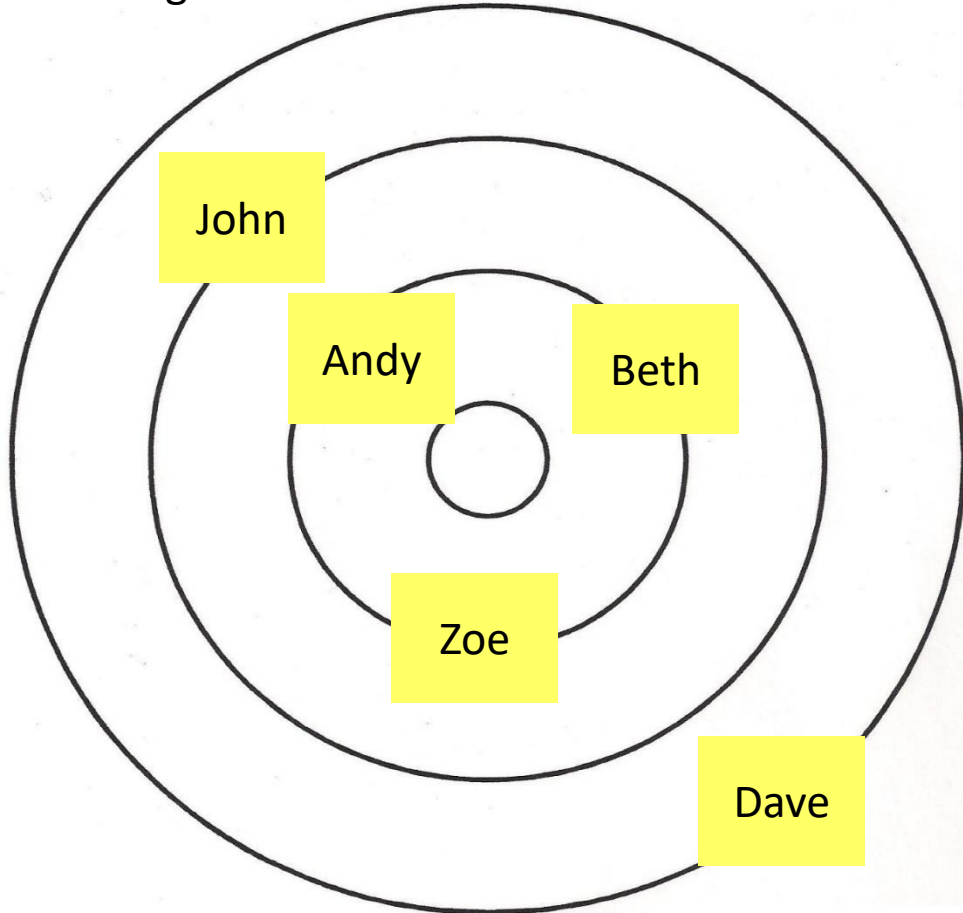UNIVERSITY *of* STIRLING

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An example...

John

Andy

Beth

Zoe

Dave

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Name interpreter

Pseudonym	1 John	2 Andy	3 Beth	4 Zoe	5 Dave
Occupation					
Gender					
Years of experience in the job					
How do you know?					
How frequently have you talked with X about curriculum this term?					
What do you usually talk about?					
How strong is your connection?					

Name interrelator

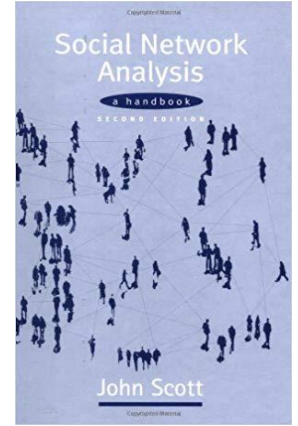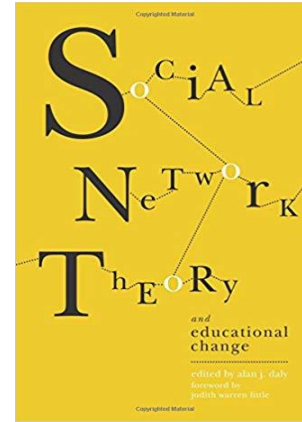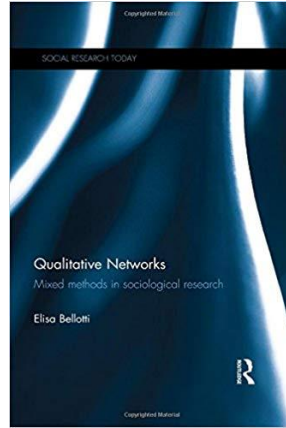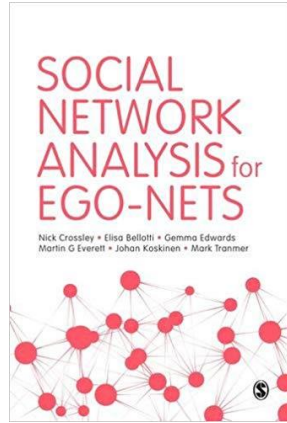|	2	3	4	5
1	✔	X	X	X
2	X	✔	✔	✔
3	X	X	X	X
4	X	X	X	X
5	X	X	X	X

Name generator
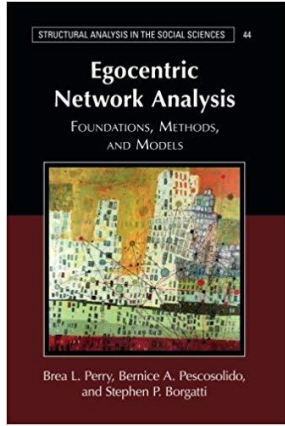

	2	3	4	5
1	✔	X	X	X
2	X	✔	✔	✔
3	X	X	X	X
4	X	X	X	X
5	X	X	X	X

John

Andy

Beth

Zoe

Dave

Discuss one or two of the followings

- **Composition (e.g. gender, years of experience)**
- **The frequency of communication**
- **Tie strength**
- **What flows in the network (e.g. content)**

With regards to curriculum making by teachers and how they mediate teachers' practices.

Softwares: UCINET, Netdraw, E-net, Pajek

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