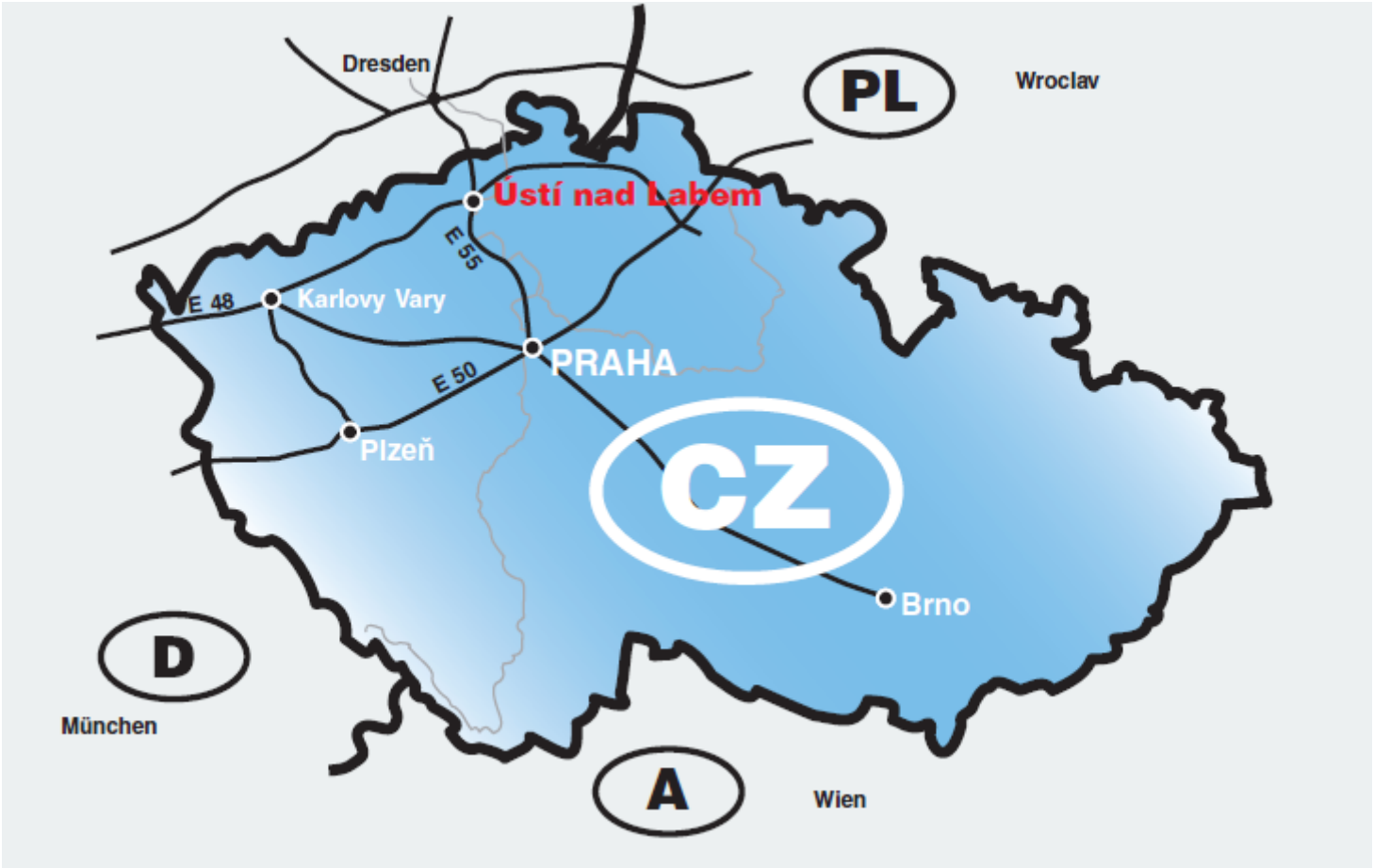
About UJEP
Urban mobility research

Hana Brůhová Foltýnová
Radomíra Jordová

eac ade mia
JAN EVANGELISTA PURKYNĚ UNIVERSITY IN ÚSTÍ NAD LABEM
Faculty of Social and Economic Studies
IEP Institut pro ekonomickou a ekologickou politiku
UNIVERZITA J. E. PURKYNE V USTI NAD LABEM

Ústí nad Labem



https://prezi.com/dw_j-7_anwcz/faculty-of-social-and-economic-studies/?utm_campaign=share&utm_medium=copy/?utm_campaign=share&utm_medium=copy7

UJEP

- 1954 – Pedagogic high school
- 1991 – transformation to UJEP: 3 faculties
- 2019 – developing UJEP: 8 faculties, nearly 8,5 thous students, more than 800 staff (400 academic)

About FSE UJEP

- Founded 1991
  - economics and management
  - economic policy
  - public administration, regional development
  - social work
- 3 research institutes
  - IEEP (www.ieep.cz)
  - ***Research group on***

    Transport and regional development

Urban mobility research

- New and dynamic team
- Multidisciplinary approach, emphasise on social sciences
  - Transport planning and policy
  - Transport economics
  - Geography, demography
  - Statistics and transport modelling
  - Sociology, psychology
- A close cooperation with the city of Ústí
- Cooperation with other cities and their networks, regional bodies, ministries
- International cooperation

Research topics

- Transport policy and planning
- Mobility management
- Monitoring and evaluation of policies and measures
- Transport regulation
- Support of non-motorized transport
- Transport behaviour and transport behaviour changes
- Transport and Environment / Public health
- Smart City

Future plans

- Behavioral lab
- New university course for master students on urban mobility planning, involving the topic in other courses, e.g. case studies on sustainable mobility planning/governance in management studies
- Mobility plan for the University campus
- Carpooling at the university
- Further research topics:
  - Mobility management – for different cities, regions, companies and other bodies
  - How to better integrate regional transport
  - Transport behaviour of specific target groups
  - Transport behaviour surveys (harmonisation of methodology)
  - Harmonisation of some common transport indicators (modal split, …)

Research projects

- **Smart City – Smart Region – Smart Community**
- 2018 – 2023
- Research on potential of various Smart measures to change transport behaviour
- Several case studies
  - Car-pooling
  - Car-sharing
  - On-line trip planners, real-time information in PT, e-government
- Several surveys and data collections, repeated cross-section data
- Global impacts – multimodal transport model

Research projects

Strategic tools for support to municipal decision-making on sustainable transport

- **April 2018 – June 2021**
- **Focus on**
  - Barriers in strategic municipal planning (sustainable mobility)
  - Decision-making on transport measures
  - Monitoring and assessment (before and after) of sustainable urban mobility tools
- **Main project outcomes:**
  - Certified methodology for cities for monitoring and evaluation of sustainable urban mobility tools
  - Web-based application on impacts of transport measures in urban areas
  - Book for cities´ employees on evaluation

Methodology and sample characteristics

- Structured interviews on governance (45)
  - FG + snowball sampling
- Questionnaire on evaluation praxis (70 answers, more than 50 Czech cities)

DIVISION OF RESPONDENTS BY THEIR AREA OF ACTIVITY

Characteristics	
City politicians	11
Municipal authority representatives	11
City-run public transport authority representatives	3
Ministry representatives	4
Consultants, transport experts, academia	5
Non-governmental organization representatives	4
Representatives of companies offering new mobility services for cities	6
Journalists	1

Qualitative analyses

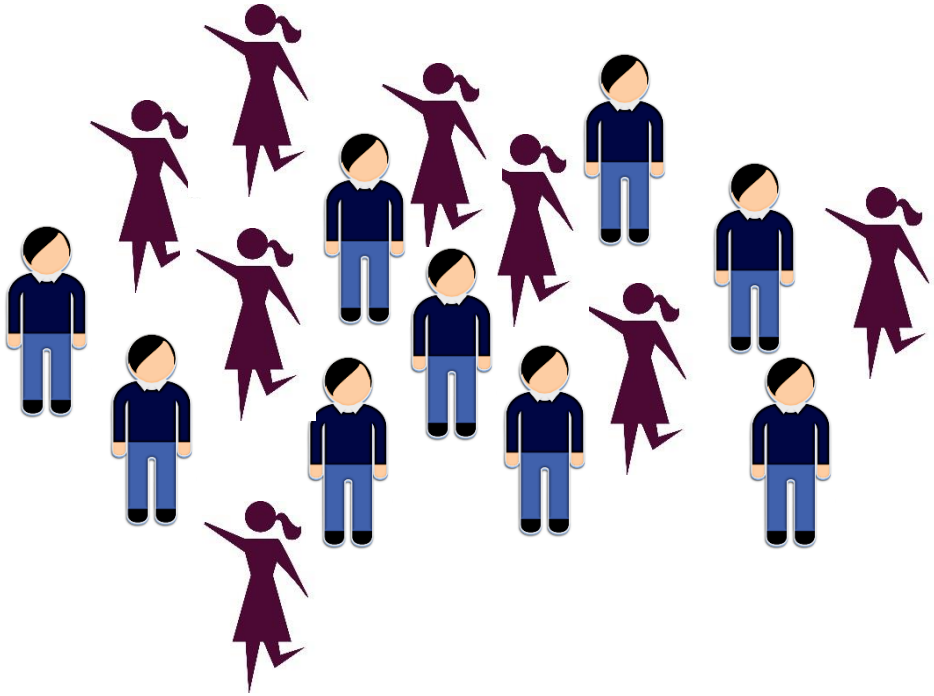
MAIN BARRIERS OF SUSTAINABLE MOBILITY MEASURES DEVELOPMENT DURING THE WHOLE PLANNING CYCLE

Planning	Implementation	Evaluation
Complicated permitting processes (in the case of infrastructure projects)	Legislation (purchase of building sites) in the case of infrastructure projects	Unconcern of politicians and administrative staff
Willingness of politicians to support measures	Complicated and problematic tendering processes	Missing data
Missing agreement among politicians	Change of local governments during implementation	Concern about data interpretation
Low acceptance by the public	Communication with the public	Lack of funds to collect data and analyse them
Complicated communication of involved actors	Missing experts at city level	Missing experts at city level
Missing experts at city level	Financial (lack of funds)	
Underestimation of planning (poor documentation quality)		

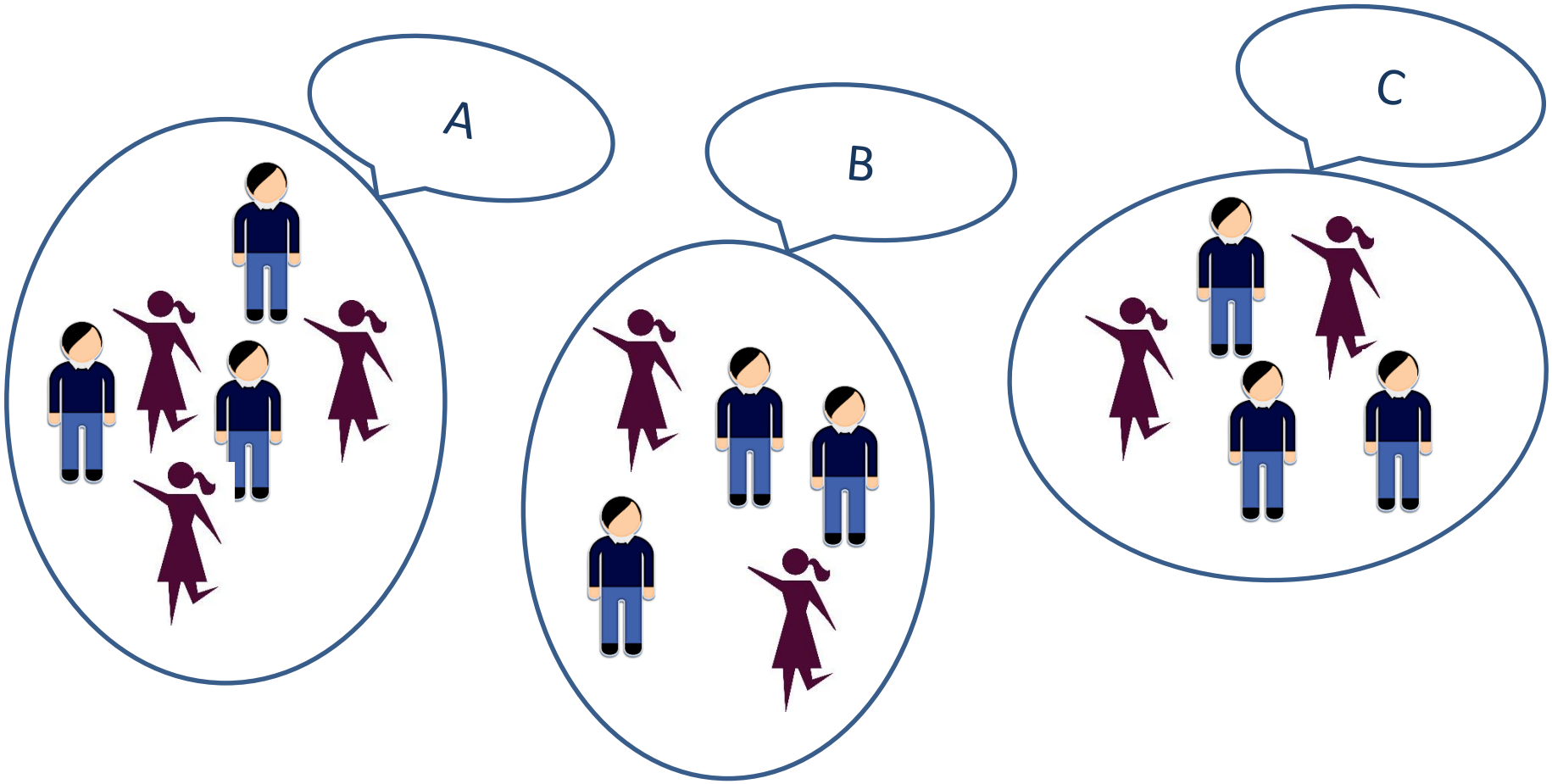
?

Q method

- William Stephenson (The study of behavior; Q-technique and its methodology, 1953)



Shared viewpoints



Q method

Opinion reviews (research journals, newspapers, blogs, youtube, etc.) = Q population

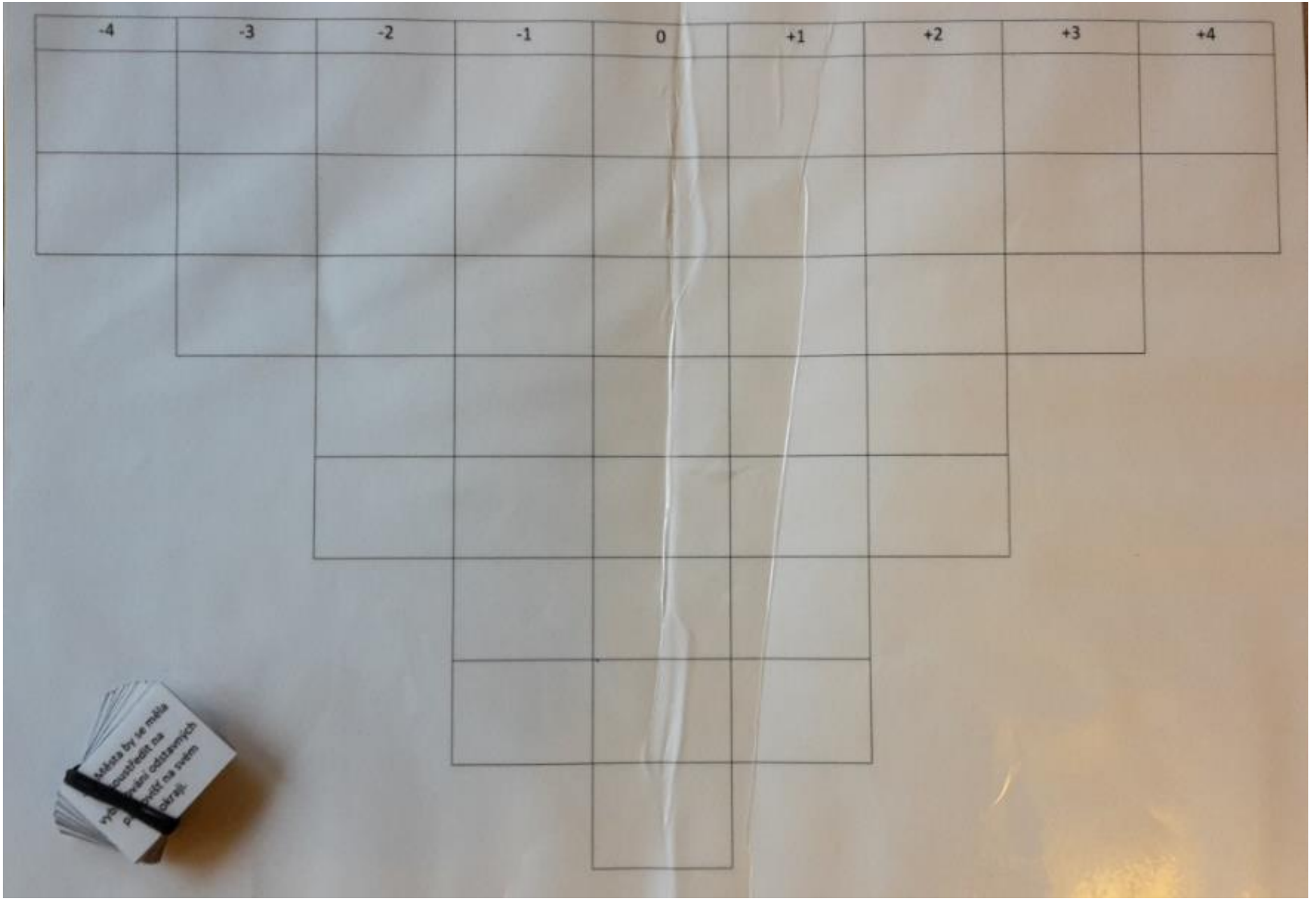
Development of a set of 42 statements = Q sample

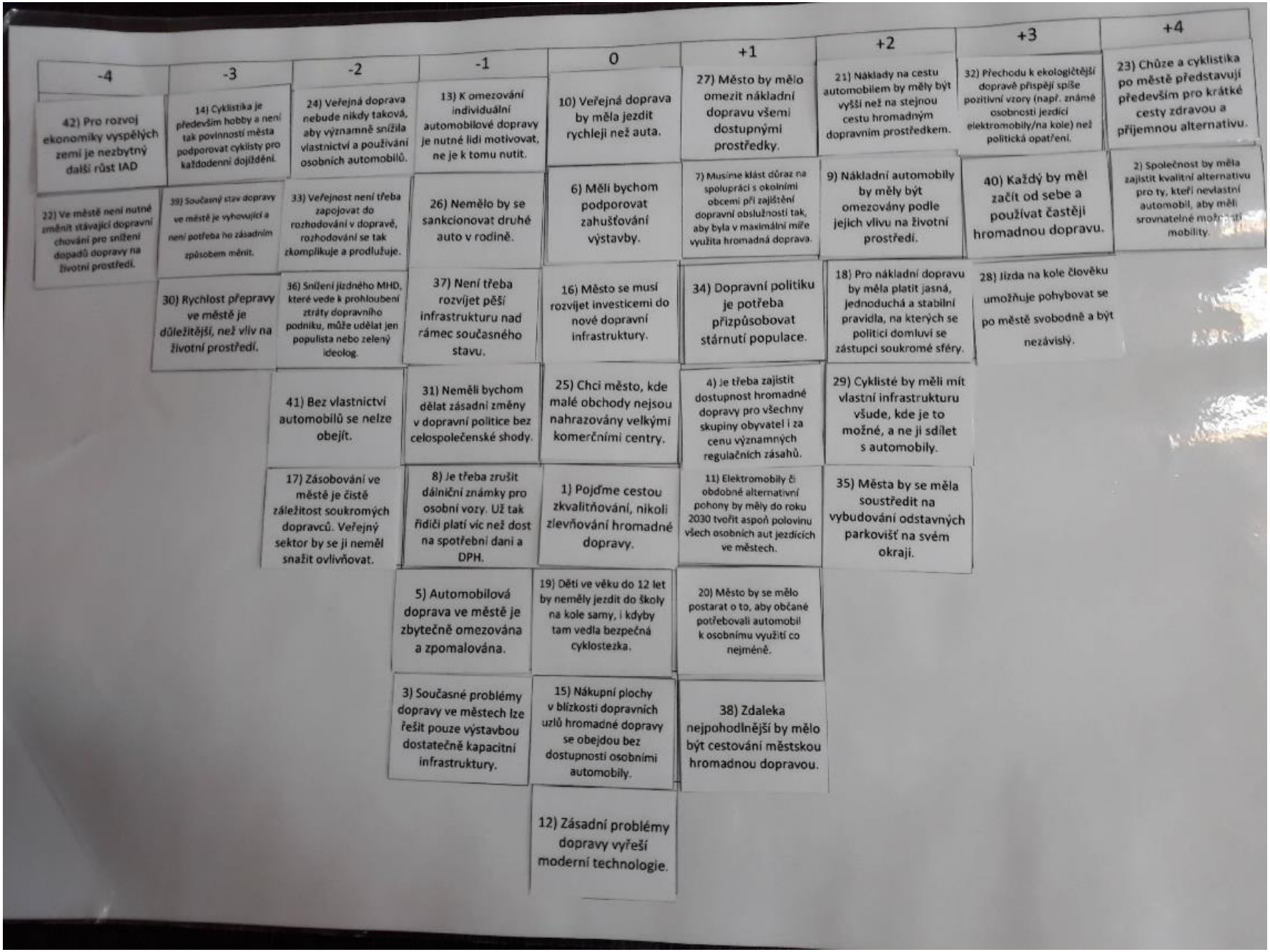
Selection of participants = P sample

Sorting statements by participants = Q sorts

Factorial analysis

Interpretation – Shared viewpoints = Factors


-4
-3
-2
-1
0
+1
+2
+3
+4


-4
-3
-2
-1
0
+1
+2
+3
+4
42) Pro rozvoj ekonomiky vyspělých zemí je nezbytný další růst IAD
14) Cyklistika je především hobby a není tak povinností města podporovat cyklisty pro každodenní dojíždění.
24) Veřejná doprava nebude nikdy taková, aby významně snížila vlastnictví a používání osobních automobilů.
13) K omezování individuální automobilové dopravy je nutné lidi motivovat, ne je k tomu nutit.
10) Veřejná doprava by měla jezdit rychleji než auta.
27) Město by mělo omezit nákladní dopravu všemi dostupnými prostředky.
21) Náklady na cestu automobilem by měly být vyšší než na stejnou cestu hromadným dopravním prostředkem.
32) Přechodu k ekologičtější dopravě přispějí spíše pozitivní vzory (např. známé osobnosti jezdící elektromobily/na kole) než politická opatření.
23) Chůze a cyklistika po městě představují především pro krátké cesty zdravou a příjemnou alternativu.
22) Ve městě není nutné změnit stávající dopravní chování pro snížení dopadů dopravy na životní prostředí.
39) Současný stav dopravy ve městě je vyhovující a není potřeba ho zásadním způsobem měnit.
33) Veřejnost není třeba zapojovat do rozhodování v dopravě, rozhodování se tak zkomplikuje a prodlužuje.
26) Nemělo by se sankcionovat druhé auto v rodině.
6) Měli bychom podporovat zahušťování výstavby.
7) Musíme klást důraz na spolupráci s okolními obcemi při zajištění dopravní obslužnosti tak, aby byla v maximální míře využita hromadná doprava.
9) Nákladní automobily by měly být omezovány podle jejich vlivu na životní prostředí.
40) Každý by měl začít od sebe a používat častěji hromadnou dopravu.
2) Společnost by měla zajistit kvalitní alternativu pro ty, kteří nevlastní automobil, aby měli srovnatelné možnosti mobility.
30) Rychlost přepravy ve městě je důležitější, než vliv na životní prostředí.
36) Snížení jízdného MHD, které vede k prohloubení ztráty dopravního podniku, může udělat jen populista nebo zelený ideolog.
37) Není třeba rozvíjet pěší infrastrukturu nad rámec současného stavu.
16) Město se musí rozvíjet investicemi do nové dopravní infrastruktury.
34) Dopravní politiku je potřeba přizpůsobovat stárnutí populace.
18) Pro nákladní dopravu by měla platit jasná, jednoduchá a stabilní pravidla, na kterých se politici domluví se zástupci soukromé sféry.
28) Jízda na kole člověku umožňuje pohybovat se po městě svobodně a být nezávislý.
41) Bez vlastnictví automobilů se nelze obejít.
31) Neměli bychom dělat zásadní změny v dopravní politice bez celospolečenské shody.
25) Chci město, kde malé obchody nejsou nahrazovány velkými komerčními centry.
4) Je třeba zajistit dostupnost hromadné dopravy pro všechny skupiny obyvatel i za cenu významných regulačních zásahů.
29) Cyklisté by měli mít vlastní infrastrukturu všude, kde je to možné, a ne ji sdílet s automobily.
17) Zásobování ve městě je čistě záležitost soukromých dopravců. Veřejný sektor by se ji neměl snažit ovlivňovat.
8) Je třeba zrušit dálniční známky pro osobní vozy. Už tak řidiči platí víc než dost na spotřební dani a DPH.
1) Pojďme cestou zkvalitňování, nikoli zlevňování hromadné dopravy.
11) Elektromobily či obdobné alternativní pohony by měly do roku 2030 tvořit aspoň polovinu všech osobních aut jezdících ve městech.
35) Města by se měla soustředit na vybudování odstavných parkovišť na svém okraji.
5) Automobilová doprava ve městě je zbytečně omezována a zpomalována.
19) Děti ve věku do 12 let by neměly jezdit do školy na kole samy, i kdyby tam vedla bezpečná cyklostezka.
20) Město by se mělo postarat o to, aby občané potřebovali automobil k osobnímu využití co nejméně.
3) Současné problémy dopravy ve městech lze řešit pouze výstavbou dostatečně kapacitní infrastruktury.
15) Nákupní plochy v blízkosti dopravních uzlů hromadné dopravy se obejdou bez dostupnosti osobními automobily.
38) Zdaleka nejpohodlnější by mělo být cestování městskou hromadnou dopravou.
12) Zásadní problémy dopravy vyřeší moderní technologie.

Results

- PQ method programme (Peter Schmolck, 2015)
- 3 shared viewpoints (factors)
- They describe 65 % of varialibity

Table A.1: Statements and scores on 3 extracted factors

No.	Statements	Factors 1		2		3	
1	Let us take the path of public transport improvement, not price reduction.	0.45	19	0.78	12	0.00	24
2	Society should provide a quality alternative for those who do not own a car to enjoy comparable mobility options.	1.23	4	0.78	12	-1.58	40
3	Current urban transport problems cannot be solved by simply building sufficient infrastructure capacity.	-1.27	36	1.95	2	-0.37	31
4	We need to provide availability of public transport for all categories of citizens even at the costs of significant regulatory interventions.	0.75	14	0.36	25	1.39	4
5	Car traffic in cities is pointlessly restricted and slowed down.	-1.51	41	0.49	28	0.56	13
6	We should promote denser development rather than urban sprawl.	0.94	9	0.93	37	0.91	34
7	We have to emphasise cooperation with neighbouring municipalities in provision of transport services with maximum utilisation of public transport.	1.62	1	1.77	3	0.17	20
8	Motorway vignettes for cars have to be abolished. Drivers pay more than enough through excise duty and VAT anyway.	-1.08	31	-2.06	41	0.47	15
9	Goods vehicles should be restricted depending on their environmental impacts.	0.95	8	0.89	9	0.46	16
10	Public transport should run faster than cars.	0.84	12	0.85	35	-1.58	40
11	Electric cars or similar alternative drives should make up at least one half of all cars running in cities by 2030.	0.64	17	0.33	15	-2.23	41
12	Modern technology will resolve the fundamental transport problems.	0.36	27	0.98	38	0.74	33
13	People have to be motivated, not forced, to reduce single car use.	0.55	18	0.17	17	1.75	1
14	Cycling is a hobby more than anything else, so that cities do not have to support cyclists in everyday commuting.	-1.33	39	-1.4	40	1.12	5
15	Shopping areas will good public transport services do not need large parking areas.	0.65	16	0.82	34	0.56	13
16	The city has to develop through investment in new transport infrastructure.	0.06	22	2.04	1	0.63	11
17	Urban deliveries are purely a matter of private hauliers. The public sector should not try to influence them.	0.84	30	0.41	26	-1.3	38
18	Freight transport in cities should be subject to clear, simple and stable rules on which politicians would agree with private sector representatives.	0.38	20	0.76	33	0.09	22
19	Children under 12 years of age should not bicycle to school on their own, even if there is a safe cycling trail.	0.63	28	-1.22	39	-1.1	37
20	The city should take care that citizens need a car for private use as little as possible.	1.2	5	0.42	27	1.67	2
21	The costs of a car trip should be higher than those of the same trip by public transport.	0.89	10	1.29	4	0.82	8
22	Cities do not need a change in the current transport behaviour to reduce environmental impacts of transport.	-1.75	42	0.56	29	1.02	7
23	Walking a cycling around the city are a health and pleasant alternative particularly for shorter trips.	1.49	2	1.12	6	-2.6	42
24	Public transport will never be good enough to significantly reduce car ownership and use.	-1.11	32	0.73	14	0.28	29
25	I want a city where small shops are not replaced with large commercial centres.	0.66	15	0.98	7	0.28	29
26	A second car in a family should not be penalised.	0.29	26	0.83	10	0.09	22
27	The city should restrict freight transport using any available means.	0.06	23	0.19	16	0.93	35
28	Bicycling enables people to move around the city freely and be independent.	1.23	3	1.13	5	0.00	24
29	Cyclists should have their own infrastructure wherever possible instead of sharing it with cars.	0.37	21	0.11	19	0.65	10
30	The speed of traffic in the city is more important than environmental impacts.	-1.32	38	0.86	36	0.37	31
31	We should not make any fundamental changes in transport policy without a society-wide agreement.	0.06	25	0.7	32	1.58	3
32	A shift to environmentally friendlier transport will be better assisted by positive role models (e.g., celebrities using electric cars/bicycles) than by political measures.	0.05	24	0.67	30	0.28	19
33	The public does not need to be involved in transport decision-making, as it makes the decision-making more complicated and lengthier.	-1.24	35	0.14	22	0.37	18
34	Transport policy has to be adjusted to population ageing.	0.76	13	0.26	24	0.19	27
35	Cities should focus on building incentive parking facilities at their edges.	0.95	7	0.01	21	0.19	27
36	A reduction in public transport fares, leading to deeper loss for the transport authorities, would only be made in a populist or green ideologist.	0.7	29	0.95	8	-1.02	36
37	Walking infrastructure does not need to be developed beyond its present extent.	-1.18	33	0.22	23	0.47	15
38	Taking the public transport should be by far the most convenient way of travel.	0.99	6	0.16	18	0.09	25
39	The current state of transport in the city is satisfactory and there is no need to change it fundamentally.	-1.29	37	-2.24	42	0.54	32
40	Everyone should start by themselves and use public transport more often.	0.84	11	0.78	13	1.02	7
41	Car ownership is indispensable.	-1.18	34	0.06	20	0.75	9
42	Further growth in car traffic is essential for growing economies in advanced countries.	-1.4	40	0.67	31	0.37	18

Shared viewpoint I: **“Public transport”**

- Support of high-quality public transport
- PT = main mode competing with cars
- PT faster than cars
- Communities in the region should cooperate to secure a good connection and accessibility
- Regulation of car use
- Support car-free life in cities
- Cycling and walking alternatives to cars, but they are not perceived as those playing the main role as PT

Shared viewpoint II: **“Transport infrastructure”**

- PT will never be a mode really competing with cars
- Better transport infrastructure which can allow cars to run fluently, there should be enough parking spaces, etc.
- Cars can be substituted by walking and cycling for shorter distances
- It is good when people use PT, but they should not be pushed
- Build new and improve existing transport infrastructure to create conditions for sustainable mobility

Shared viewpoint III: **“Motivate people, not push them”**

- Against any regulation (above all, regulation of car ownership and use, but also freight traffic)
- Prefer motivation to regulation
- Do not see walking and cycling as alternative “full-fledged” modes of transport
- Cycling is perceived only as a leisure activity

Thank you for your attention!

Hana Brůhová Foltýnová

Faculty of Economic and Social Studies
Institute for economic and ecological policy
J.E. Purkyně University in Ústí nad Labem, Czech Republic

Email: hana.bruhova@ujep.cz