

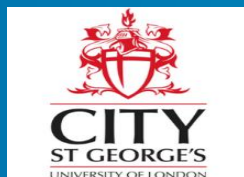
Co-identifying actionable priorities for designing school-based healthy eating intervention for adolescents in urban Bangladesh

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Empirical evidence underpinning this study

Phase 1: Umbrella review (Samad et al., 2024)

- Combination of individual and system-level interventions- more effective than individual-level interventions
- Critical gap in stakeholder involvement, particularly adolescents, in intervention design

Phase 2: Qualitative study exploring the drivers of unhealthy eating among adolescents

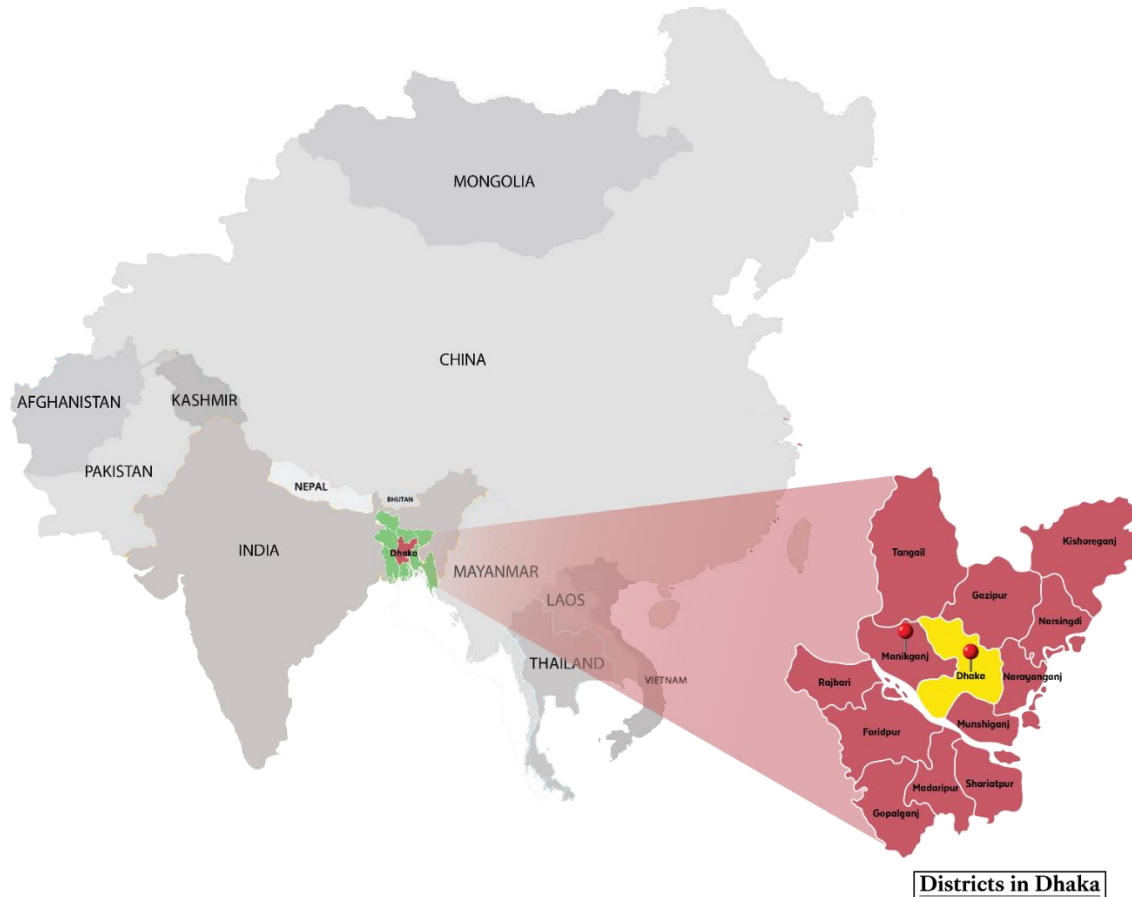
Policies (one of the themes)

- Geographical priorities- interventions/policies are primarily based in rural areas
 - Adolescents' voice is missing

Objectives

- To engage key local stakeholders (adolescents, parents, teachers and policy experts) in generating statements on the actionable priorities for school-based healthy eating intervention
- To co-identify actionable priorities that are deemed important and feasibility by the stakeholders

Methodology



Two urban schools (public and private) in the Dhaka Metropolitan City

Stakeholder mapping (*WHO tool*)

Adults

Government-level policy experts

Ministry of education, Ministry of health and family welfare

Non-government-level policy experts

BRAC, UNICEF Bangladesh, Nutrition International Bangladesh, Save the Children Bangladesh, practising dietician

Schools

Head teachers, class teachers, regular teachers, parents

Adolescents

Boys and girls aged between 10-19 years

Total number of stakeholders: 48

Adolescents: 28

Adults: 20

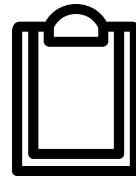
Methodology

Concept mapping approach (1)**Single focus prompt**

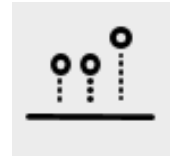
“To promote healthy eating among adolescents in schools, we should...”

**Stage 1: Generating statements**

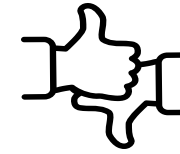
Brainstorming workshops with stakeholders

**Stage 2: Structuring the statements**

Workshops with stakeholders to sort and rate the statements

**Stage 3: Data analysis**

Multidimensional scaling
Hierarchical cluster analysis
Bridge analysis
Bi-variate plot

**Stage 4: Utilisation**

Webinar with the stakeholders

- Interpreting the maps
- Discussing the outcome
- Feedback and suggestions

Co-identified actionable priorities for school-based healthy eating intervention for adolescents

Methodology

Single focus prompt

“To promote healthy eating among adolescents in urban Bangladesh, we should...”

Stage 1: Generating statements

Brainstorming workshops with stakeholders

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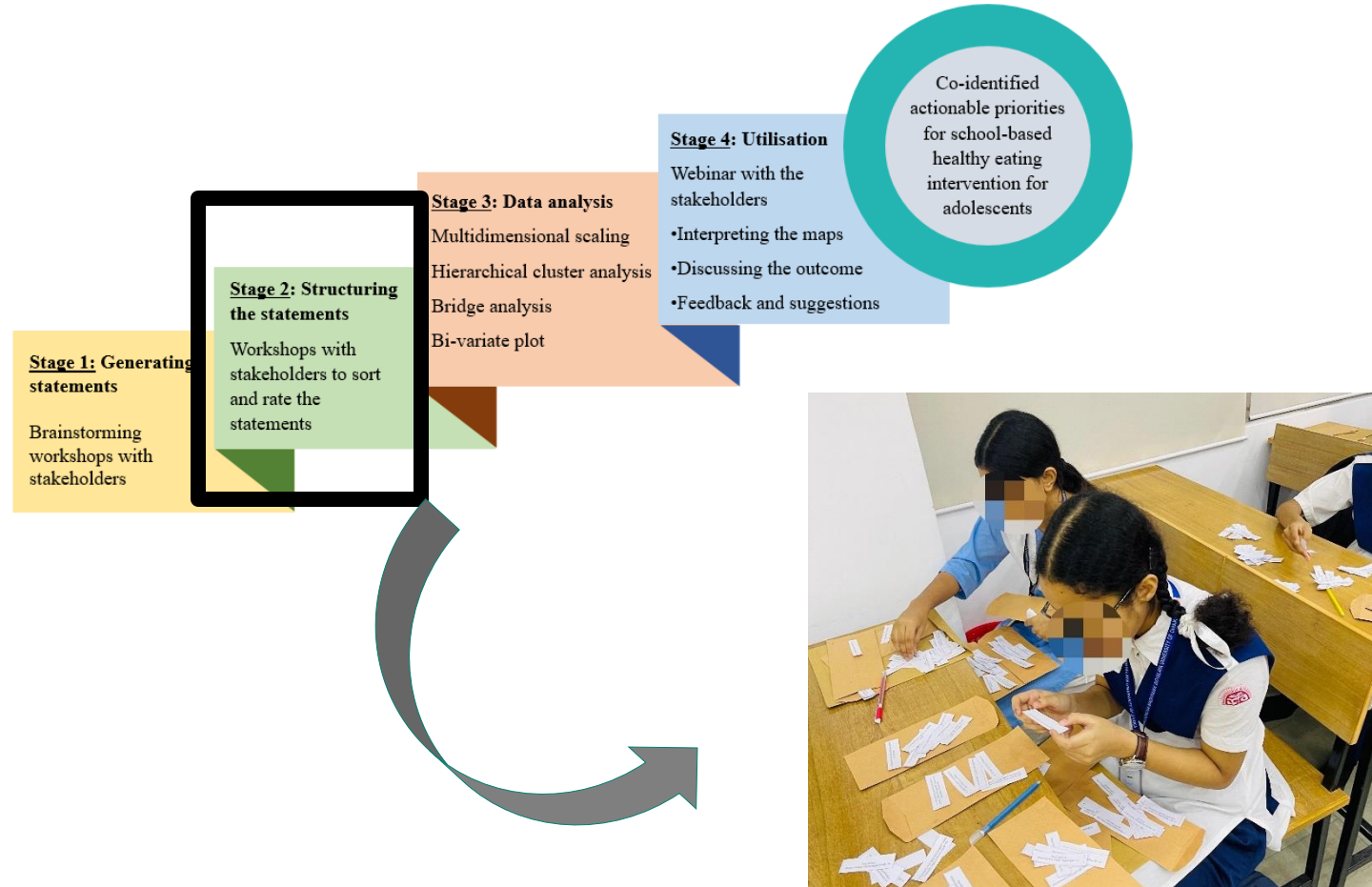
Co-identified actionable priorities for school-based healthy eating intervention for adolescents



Total number of verbatim statements: 263

Total number of refined statements: 141

Methodology



১। অ্যাপ, যাতে ক্যালরি এবং পুষ্টি সেবন ট্র্যাক করা যায়	১১। শিক্ষার্থীদেরকে নিজেস্ব স্বাস্থ্যকর টিফিন নিয়ে আসতে উৎসাহিত করা
২। শিক্ষার্থী অ্যাপ প্রোফাইলের দৈনিক আপডেট স্বাস্থ্যকর খাবার সেবন ফোরের সাথে	১২। স্বাস্থ্যকর খাবারে সম্পর্কিত কম্পিউটার ক্লাস
৩। ক্লাসের পরে সাপ্তাহিক ৩০ মিনিট স্বাস্থ্যকর খাবার করার কার্যশালা	১৩। স্বাস্থ্যকর খাবারের জন্য কুইজ প্রতিযোগিতা
৪। স্কুল ক্যান্টিনে স্বাস্থ্যকর খাবার প্রদান করা	১৪। সাংস্কৃতিক ইভেন্টে স্বাস্থ্যকর খাবার নাটক প্রদর্শন
৫। স্কুলে স্বাস্থ্যকর খাবারের ফ্রি প্রদান	১৫। সাংস্কৃতিক ইভেন্টে স্বাস্থ্যকর খাবার নাটক প্রদর্শন

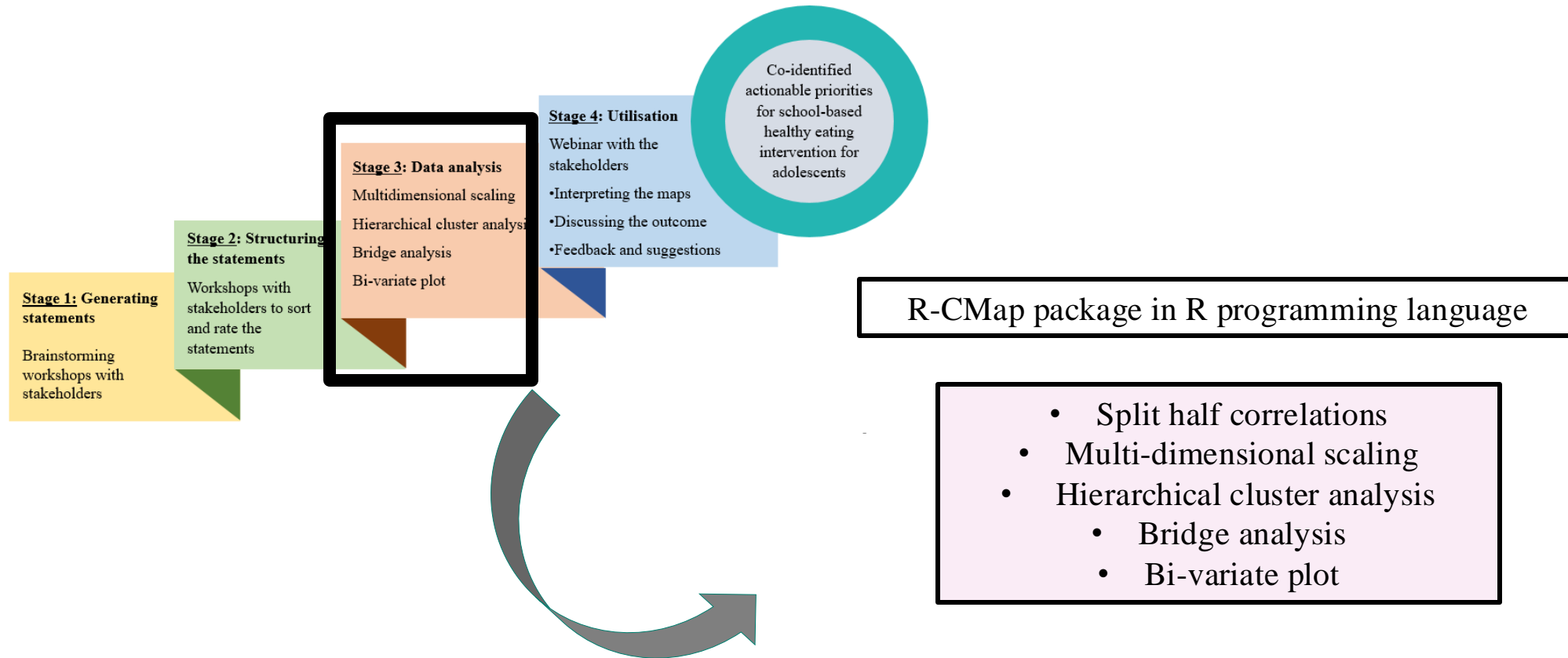
গুরুত্বের মাপকাঠি

১= প্রায় গুরুত্বপূর্ণ; ২= কিছুটা গুরুত্বপূর্ণ; ৩= মধ্যমাবস্থা গুরুত্বপূর্ণ; ৪= খুব গুরুত্বপূর্ণ; ৫= সর্বাধিক গুরুত্বপূর্ণ

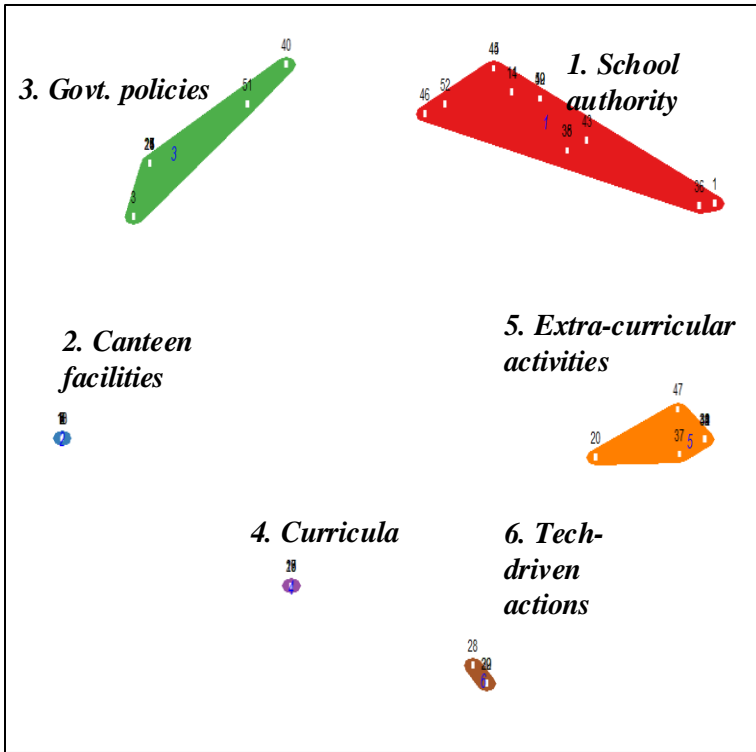
বিবৃতি	১	২	৩	৪	৫
১। অ্যাপ, যাতে ক্যালরি এবং পুষ্টি সেবন ট্র্যাক করা যায়					
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৬। বিজ্ঞান মেলায় স্বাস্থ্যকর খাবার প্রকল্প					

Total sessions (stage 1 + stage 2): 50

Methodology

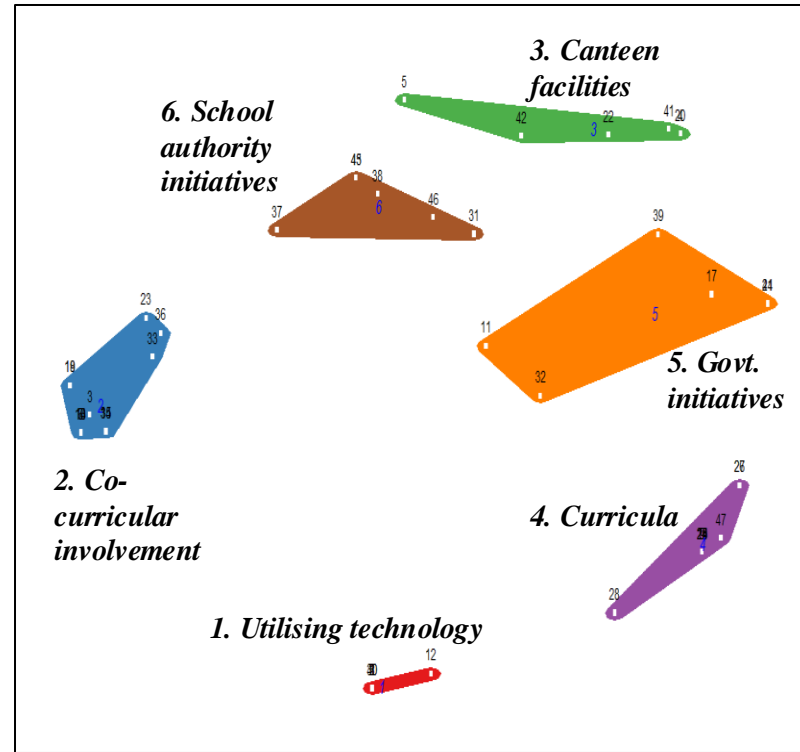


Results: Cluster maps



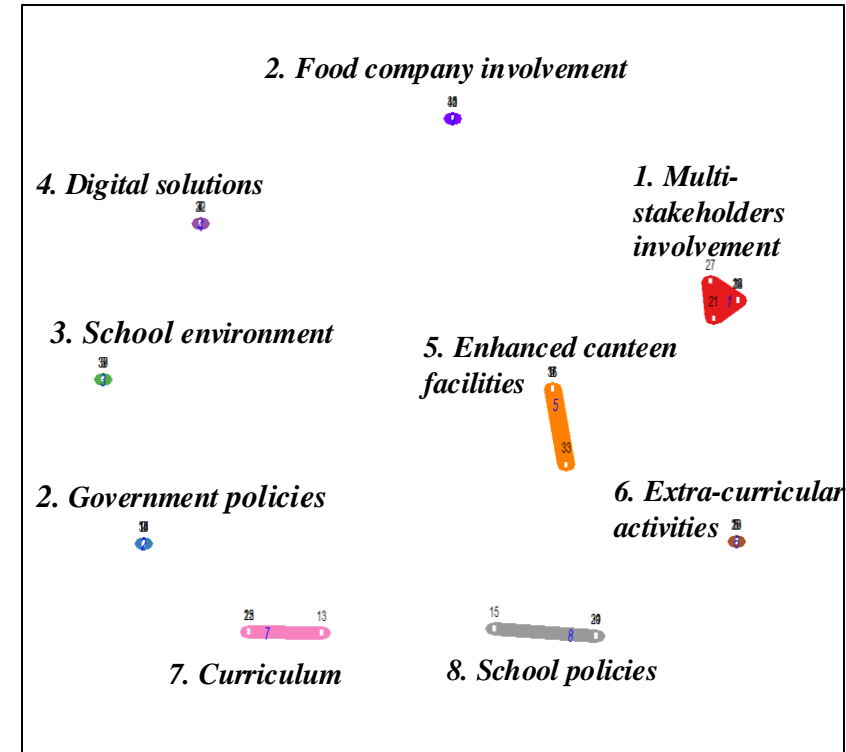
Adolescent girls

“**Tech-driven actions**” – high priority cluster (Mean feasibility: 5.00; mean importance: 5.00)



Adolescent boys

“**Utilising technology**”– high priority cluster (Mean feasibility: 4.43; mean importance: 4.86)

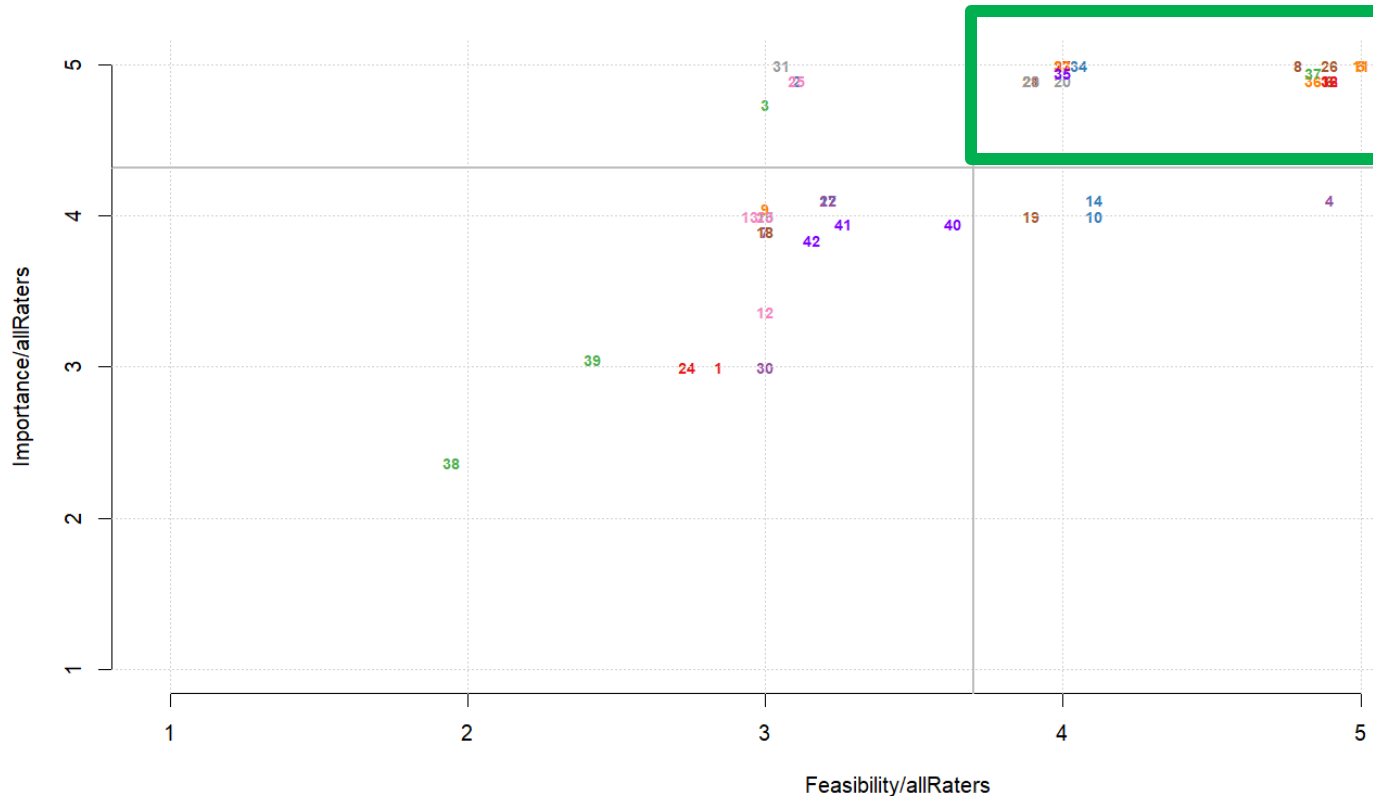


Adults

“**Canteen goals**”– high priority cluster (Mean feasibility: 4.37; mean importance: 4.79)

Results: GoZone map – comparing the feasibility and importance ratings

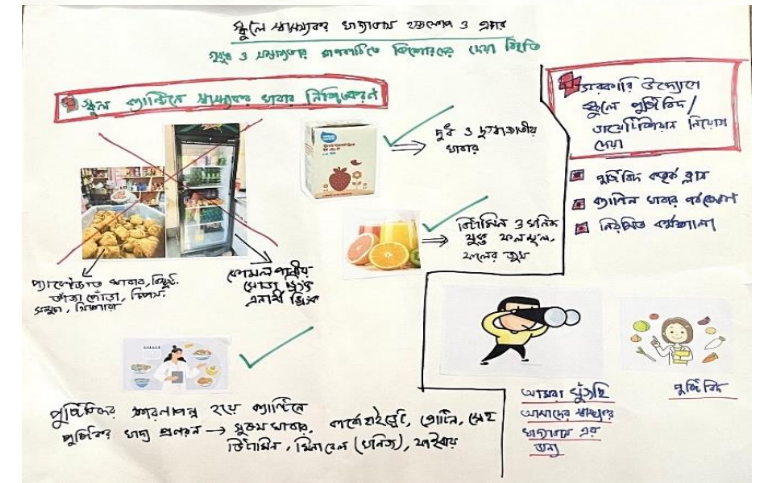
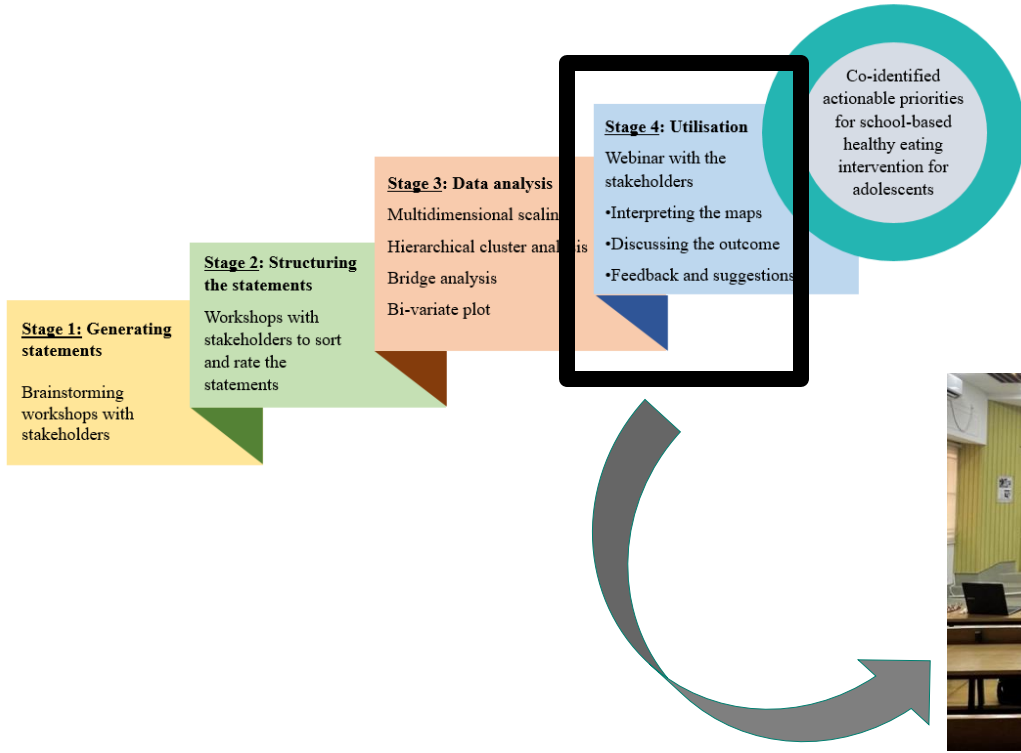
Adults



- 5. including meat analogues in canteen
- 6. annual healthy eating Olympiad
- 8. adolescent led bi-monthly healthy eating journal
- 11. consulting a nutritionist for canteen meal planning
- 16. workshop with teachers on corporate social responsibilities concerning healthy eating for adolescents
- 20. distributing free seasonal fruits and vegetables
- 21. involving parents to contribute in healthy canteen menu
- 26. organising regular health check up camp for weight, BMI measurement
- 27. food labelling workshop for adolescents, parents and teachers
- 28. observing international days on healthy eating with extra-curricular activities
- 32. govt. led healthy eating workshop with parents, teachers and students twice a year
- 33. lowering the price of healthy meals in canteen and vice versa
- 34. subsidies for healthy eating
- 35. popular food companies to sponsor healthy meals in school events
- 36. using color labels in canteen for foods based on nutrients
- 37. healthy eating posters in the corridor

Total statements: 57 (Girls, 20; boys, 21; adults, 16)

Methodology



Methodology

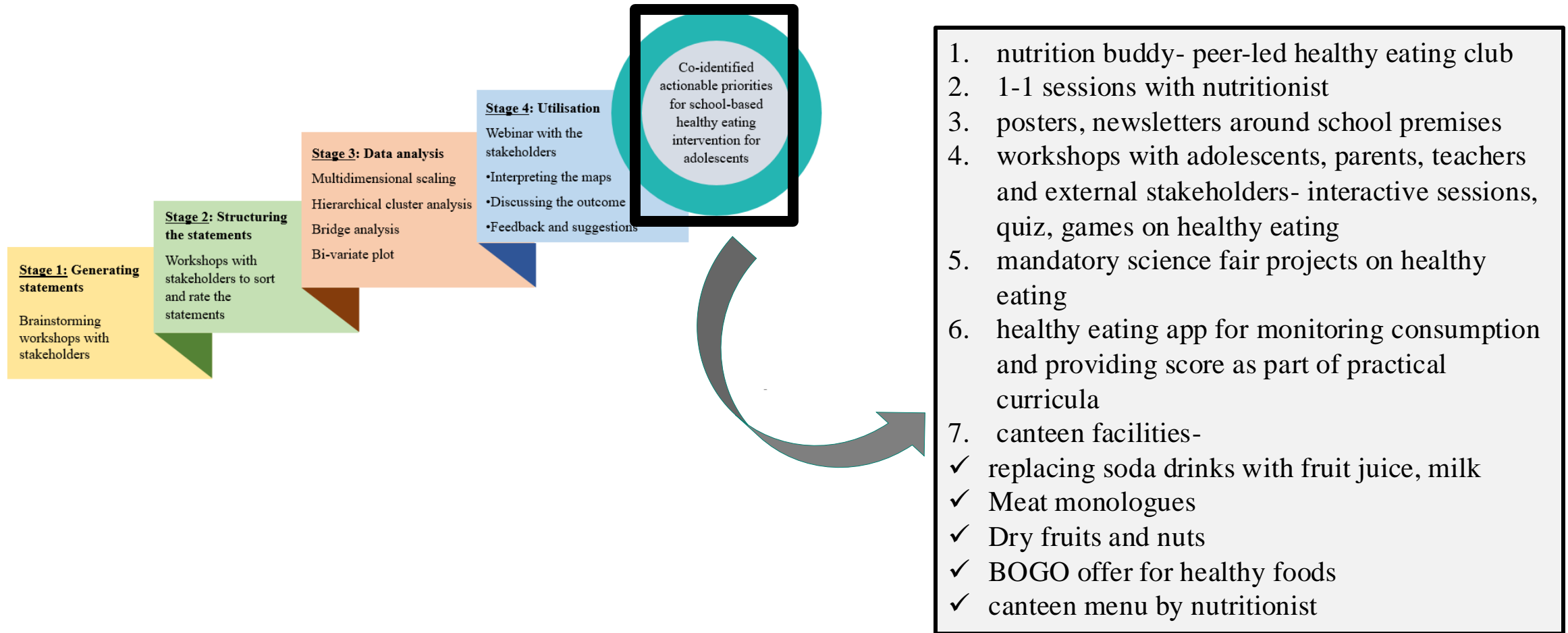


Table 3: Categorisation of multi-components using health promoting school framework (HPS) and behaviour change technique taxonomy (BCTT)

HPS categorisation	#	Actionable priorities	BCTT clusters
Health education	1	healthy eating app within the curriculum- recording daily meal consumptions, providing calculated nutritive values, providing overall healthy/ unhealthy eating scores	Feedback and monitoring
	2	healthy eating projects in science fair	Associations
	3	peer-led healthy eating club- “Nutrition buddy”- healthy eating essay competitions, school FV garden-to-table cooking competitions	Associations
	4	one-on-one sessions with nutritionist- personalised diet plan	Antecedents
School environment modification	5	enhanced canteen facilities- replacing soda drink with organic fruit juice, including meat analogues, dry fruits and nuts, buy-one-get-one offers for healthy foods, nutritionist-designed menu	Antecedents
	6	posters around the school campus- consequences of unhealthy eating, food labelling	Antecedents
Family engagement	7	healthy eating workshops with parents- recommended plate portioning visual aids, virtual grocery store tour focusing on reading nutrition labels	Associations