Systemic Transition Programme in Education for Autism Spectrum Disorder (STEP-A)

Will Mandy, UCL, UK
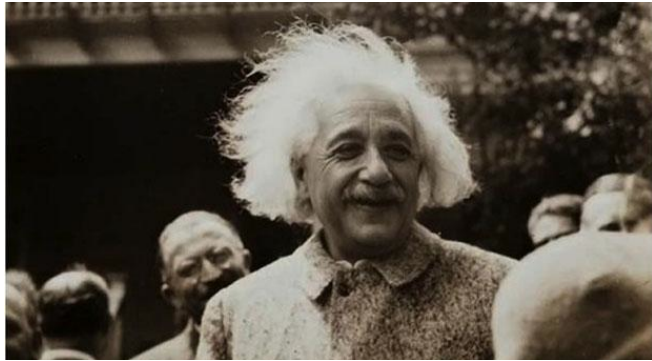Marianna Murin, Great Ormond Street Hospital, UK
David Skuse, UCL and Great Ormond Street Hospital, UK

Outline of the talk

- The autism paradox
- The importance of the ecology in autism research
- Transition in autism: How do children with autism manage school transition?
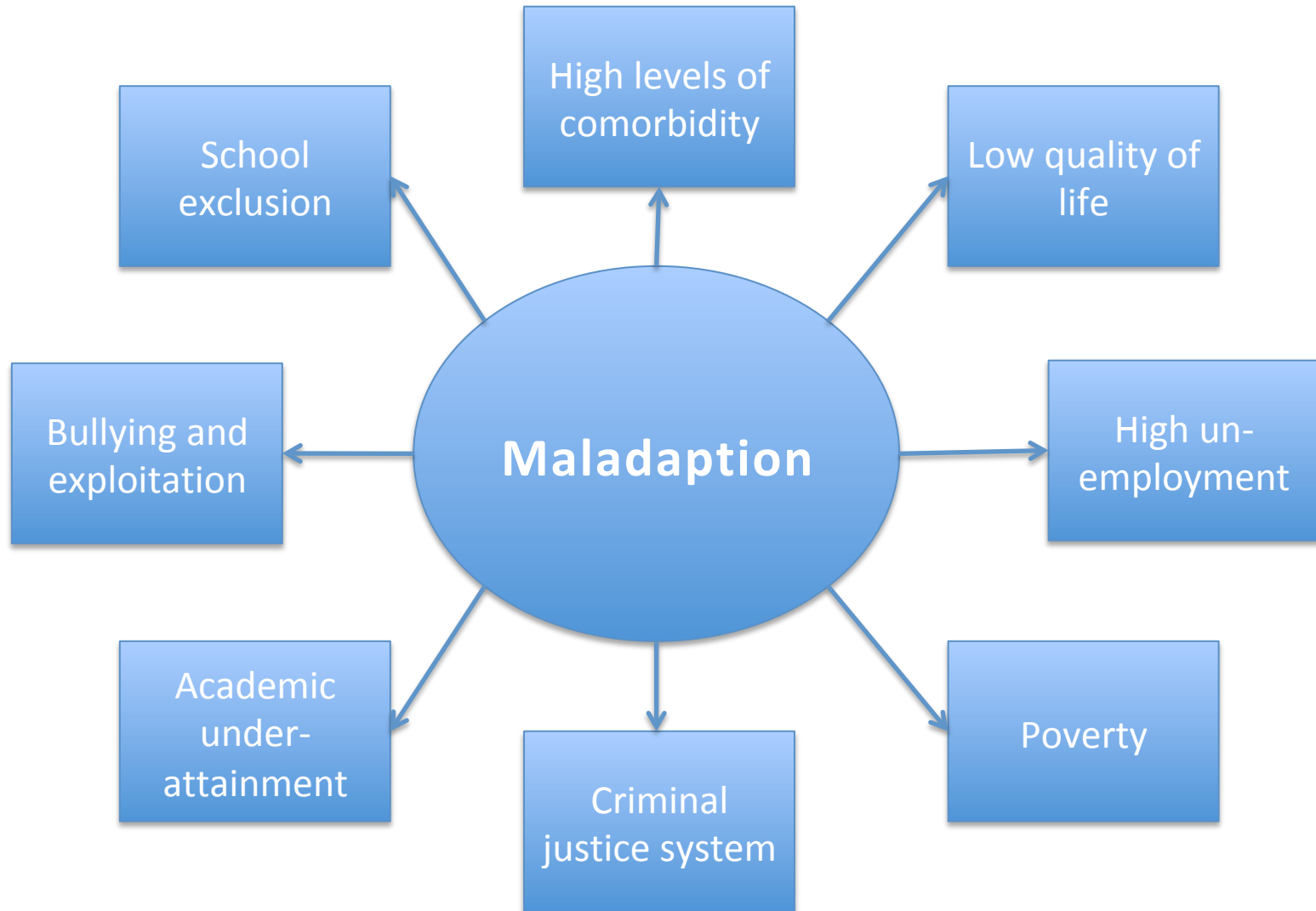- STEP-A
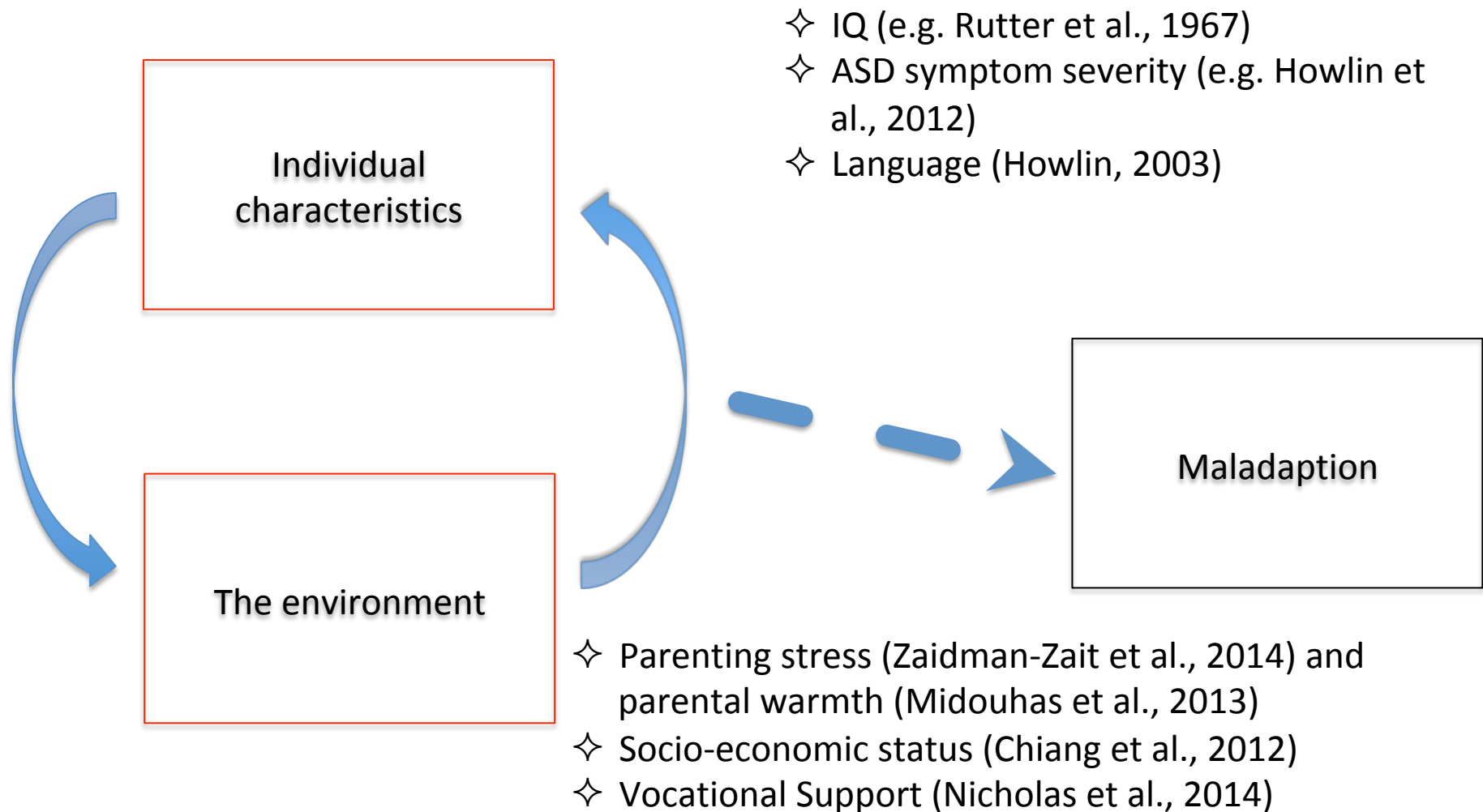- Does STEP-A work?

The autism pardox

The autism paradox

- Most autistic people (c. 70%) have an IQ in the normal range (CDC, 2014)
- Many autistic people have areas of special ability (Vital, Ronald, Wallace & Happe, 2009)
- Autism is a condition defined by cognitive peaks as well as troughs (Mandy et al., 2014)
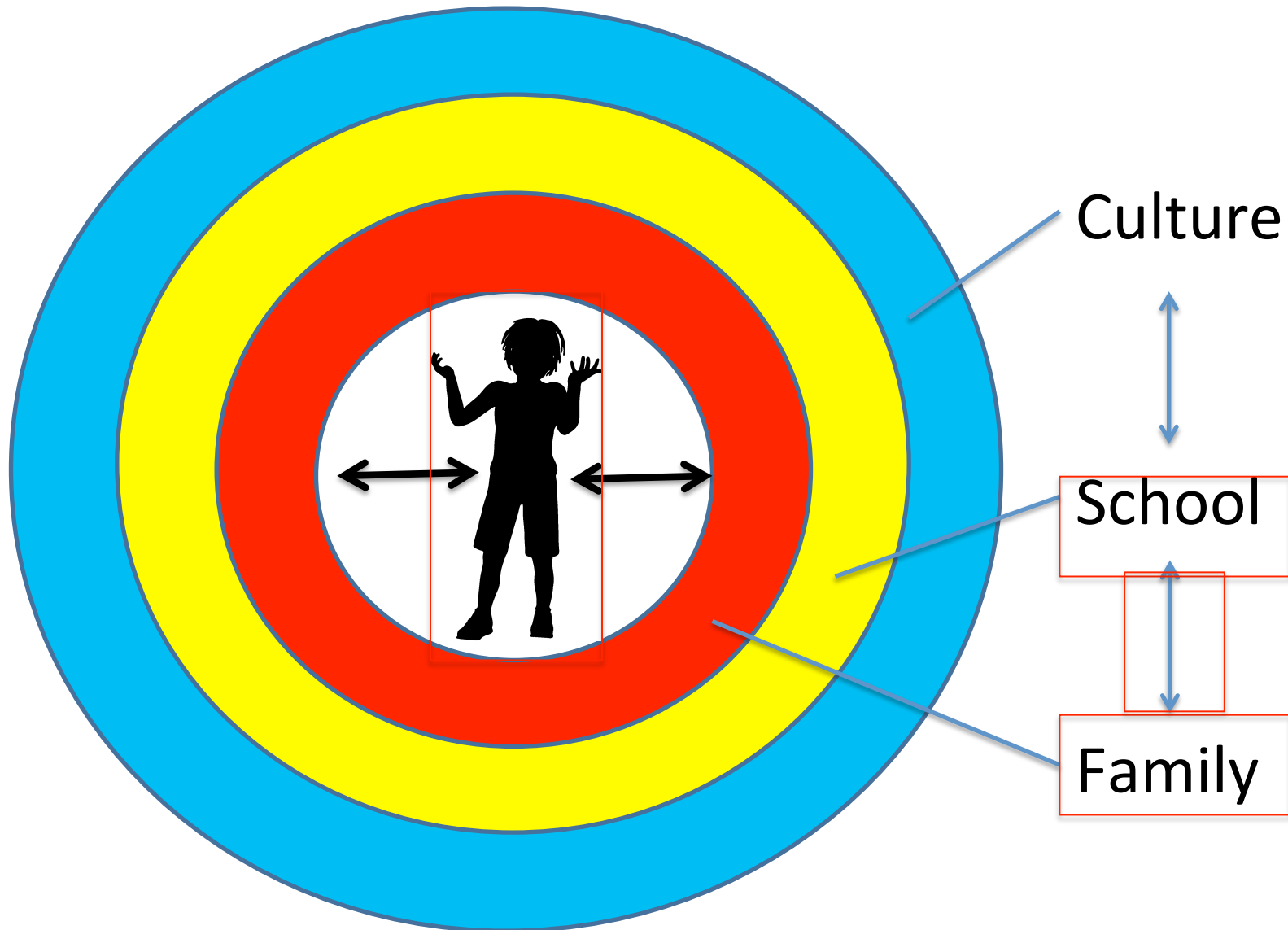- Autism is associated with a strong drive to systemize (Baron-Cohen et al., 2003)

And yet….

Trying to understand outcomes in Autism

Individual characteristics

The environment

Maladaption

- ✧ IQ (e.g. Rutter et al., 1967)
- ✧ ASD symptom severity (e.g. Howlin et al., 2012)
- ✧ Language (Howlin, 2003)

- ✧ Parenting stress (Zaidman-Zait et al., 2014) and parental warmth (Midouhas et al., 2013)
- ✧ Socio-economic status (Chiang et al., 2012)
- ✧ Vocational Support (Nicholas et al., 2014)

A simple ecological model

Culture

School

Family

Outline of the talk

- The autism paradox

- The importance of the ecology in autism research

- Transition in autism: How do children with autism manage school transition?

- STEP-A

- Does STEP-A work?

How do children with autism manage school transition?

- Fundamental differences between primary and secondary education (Coffey, 2013; Zeedyk et al., 2003)

- Anecdotal accounts / clinical experience

- Age of referral
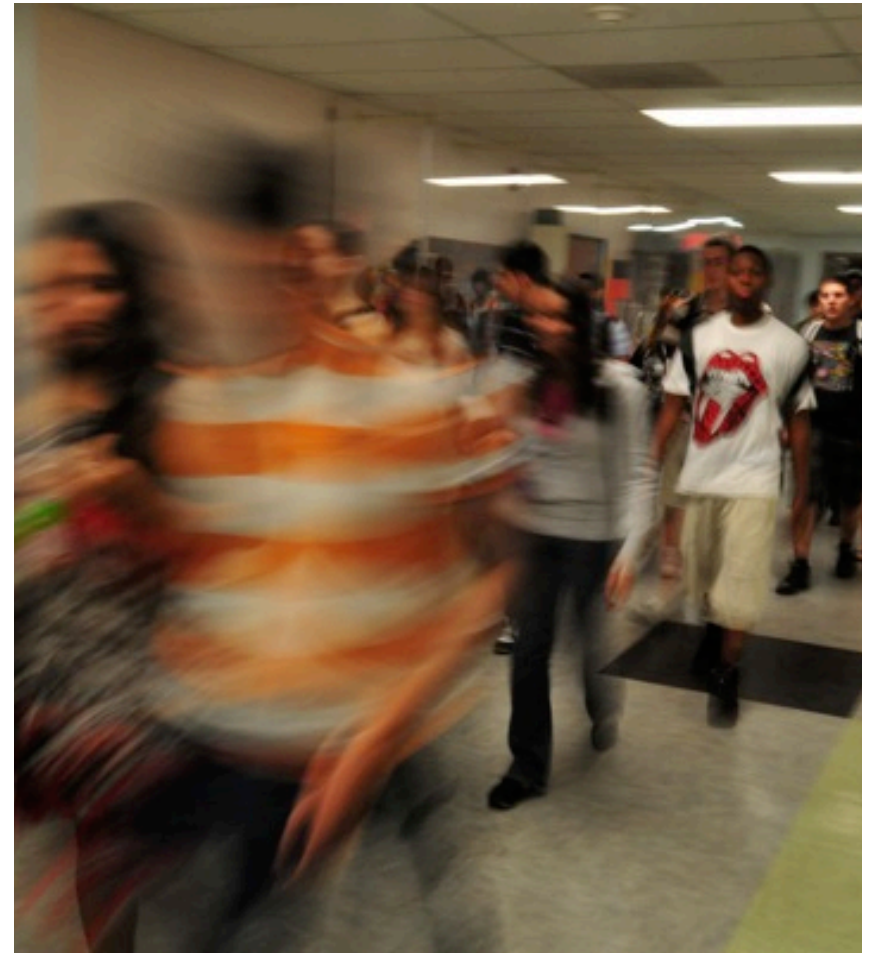
A qualitative examination of parental experiences of the transition to mainstream secondary school for children with an autism spectrum disorder

Hannah Tobin, Sara Staunton, William Mandy,
David Skuse, Josselyn Helligreil, Ozlem Baykaner,
Seonaid Anderson & Marianna Murin

Parental concerns about their child suffering due to factors including:

- ❑ Unsuitability of secondary school
- ❑ Lack of knowledge
- ❑ Bullying
- ❑ Inadequate support

Risk and resilience across school transition in children without autism

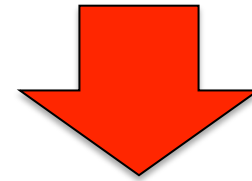**Promoters of successful transition**
Social competence
Flexibility
Self-regulation
Strong academic attainment
(Chung et al., 1998
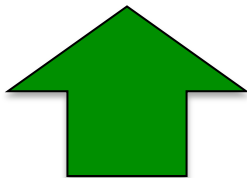Evangelou et al., 2003;
Rudolph et al., 2001)

Risk factors for difficult transition
History of peer victimization
High anxiety
(Evangelou et al., 2003)

The transition from primary to secondary school in mainstream education for children with autism spectrum disorder

William Mandy[1], Marianna Murin[2], Ozlem Baykaner[3], Sara Staunton[3], Josselyn Hellriegel[2], Seonaid Anderson[3] and David Sku se[3]

Table I. Characteristics of the sample (N = 28).

Age in years; mean (SD)	11.29 (0.40)
Proportion male	89.3%
Proportion identified as 'White British'	77.8%
Proportion with parents 'married or cohabiting'	70.4%
WISC-IV verbal comprehension index; mean (SD)	90.46 (18.35)
WISC-IV perceptual reasoning index; mean (SD)	98.54 (16.39)
WISC-IV working memory index; mean (SD)	87.04 (15.46)
WISC-IV processing speed index; mean (SD)	82.32 (17.44)
WISC-IV full-scale IQ; mean (SD)	87.86 (17.44)

SD: standard deviation; WISC-IV: Wechsler Intelligence Scale for children, fourth UK edition.

Key outcomes:
Psychopathology – measures using the Strengths and Difficulties Questionnaire and Beck Youth Inventory
Adaptation – measured using the Vinelands Adaptive Behavior Scale

School transition in autism

Table 2. Psychopathology before and after the school transition.

	Time 1 – end of primary school		Time 2 – start of secondary school		Cohen's D	Significance of t-test	Pearson correlation	Significance of NcNemar's test
	Mean (SD)	% in clinical range	Mean (SD)	% in clinical range				
Parent report (N = 26)[a]								
Strengths and Difficulties Questionnaire								
Hyperactivity	5.62 (2.98)	46.2%	5.77 (2.55)	42.3%	0.08	0.700	0.75***	1
Emotional problems	5.23 (2.75)	65.4%	5.08 (2.83)	53.8%	−0.05	0.802	0.38	0.453
Peer problems	5.19 (2.45)	65.4%	5.42 (2.21)	84.6%	0.11	0.581	0.60**	0.125
Conduct problems	2.69 (1.93)	30.8%	2.35 (1.85)	23.1%	−0.22	0.280	0.65***	0.625
Pro-social behaviour	5.62 (1.55)	50.0%	6.15 (2.51)	38.5%	0.32	0.157	0.66***	0.250
Total problems score	18.62 (6.26)	69.2%	18.62 (6.52)	57.7%	0	1	0.59**	0.375

School transition in autism

Teacher report (*N*=20)

Strengths and Difficulties Questionnaire

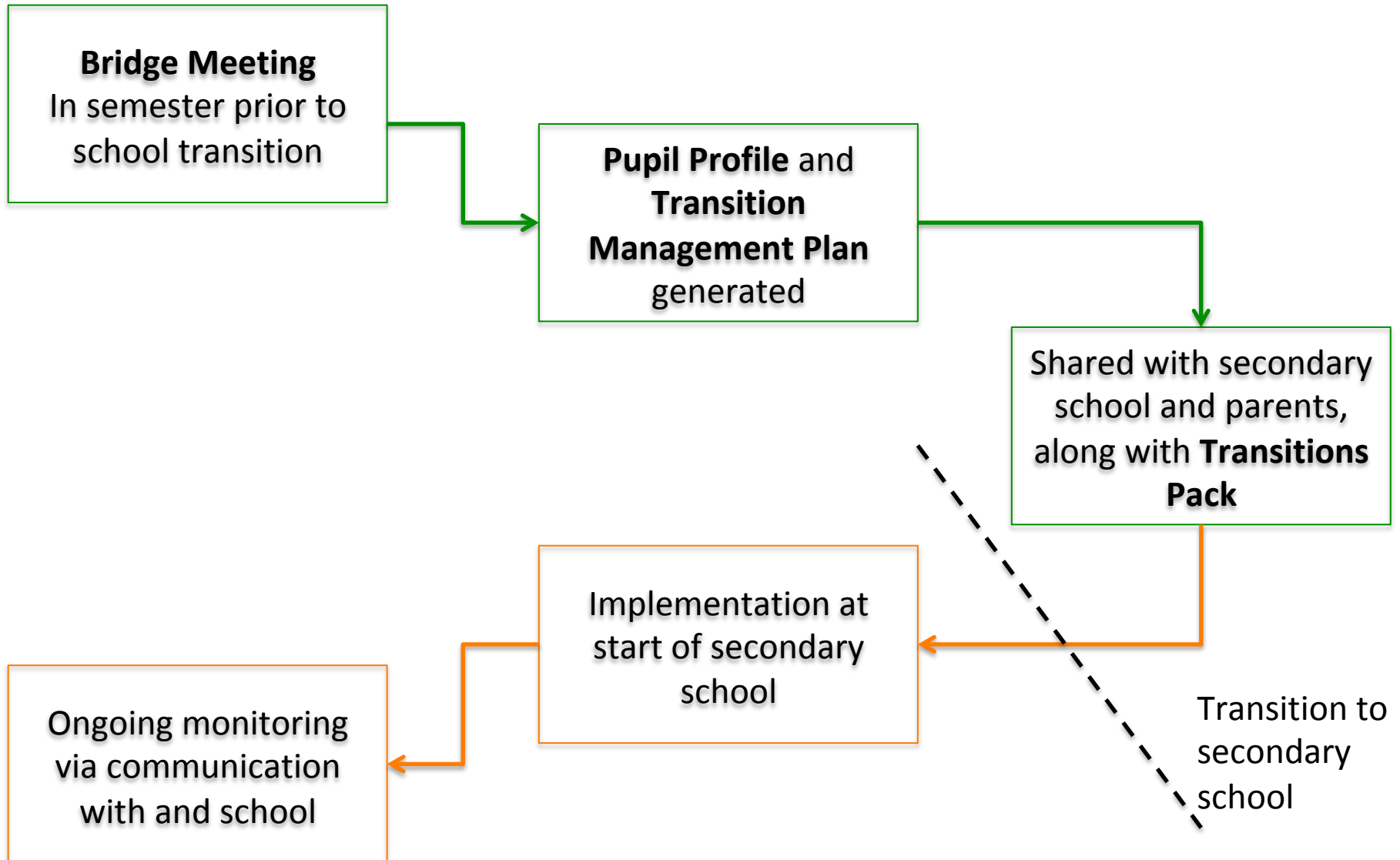|								
Hyperactivity	4.05 (2.80)	25%	3.95 (2.56)	15%	0.03	0.892	0.27	0.688
Emotional problems	3.85 (2.37)	20.0%	4.75 (3.08)	50.0%	0.36	0.131	0.59**	0.070
Peer problems	4.45 (2.70)	45.0%	4.37 (2.39)	40.0%	-0.03	0.887	0.46*	I
Conduct problems	2.10 (1.86)	20.0%	2.30 (2.56)	35.0%	0.08	0.727	0.38	0.375
Pro-social behaviour	4.90 (2.65)	45.0%	4.15 (1.98)	40.0%	0.25	0.284	0.16	I
Total problems score	14.45 (6.78)	50.0%	15.20 (7.48)	40.0%	0.14	0.563	0.69**	0.625

School transition in autism

①High levels of psychopathology and low levels of adaptation

②These do not appear to escalate over the transition

③But they are carried over from primary to secondary school

Outline of the talk

- The autism paradox
- The importance of the ecology in autism research
- Transition in autism: How do children with autism manage school transition?
- STEP-A
- Does STEP-A work?

STEP-A

Bridge Meeting
In semester prior to
school transition

Pupil Profile and
**Transition
Management Plan**
generated

Shared with secondary
school and parents,
along with **Transitions
Pack**

Implementation at
start of secondary
school

Ongoing monitoring
via communication
with and school

Transition to
secondary
school

Before the bridge meeting – identifying key strengths and difficulties

Bullying			
Has he/she experienced bullying in the past?			
Is he/she vulnerable to being bullied?			
Would you describe him/her as being a loner, hence more vulnerable?			
Does he/she misinterpret social cues and hence could be seen as an 'easy target'?			
Is he/she overly keen to please and hence vulnerable to exploitation?			
Does he/she have difficulty distinguishing teasing/bullying from non-deliberate events?			
Is he/she at risk of being perceived as a bully due to being literal or prone to telling people what to do?			
Is he/she prone to responding with challenging behaviour due to difficulty using language?			
Are there specific behaviours which make him/her particularly vulnerable to being bullied? (e.g. talking to him/herself, difficulties with getting dressed after PE, etc.). If yes, please list below:			

Before the bridge meeting – identifying key strengths and difficulties

Here are some things about moving to secondary school that children have said they might feel worried about. Please put a CIRCLE around the symbol that shows how you feel about each of these things.

	No worries	Worried	Not bothered
Big playground/ school/getting around			
Getting into trouble			
New teachers			

STEP-A

Bridge Meeting
In semester prior to school transition

Pupil Profile and **Transition Management Plan** generated

Shared with secondary school and parents, along with **Transitions Pack**

Implementation at start of secondary school

Ongoing monitoring via communication with and school

Transition to secondary school

Bridgemeeting

Attended by:

❑ Parent

❑ Child

❑ Primary school

❑ Secondary school

❑ STEP-ASD worker

Identify needs and strategies to meet these at secondary school

STEP-A

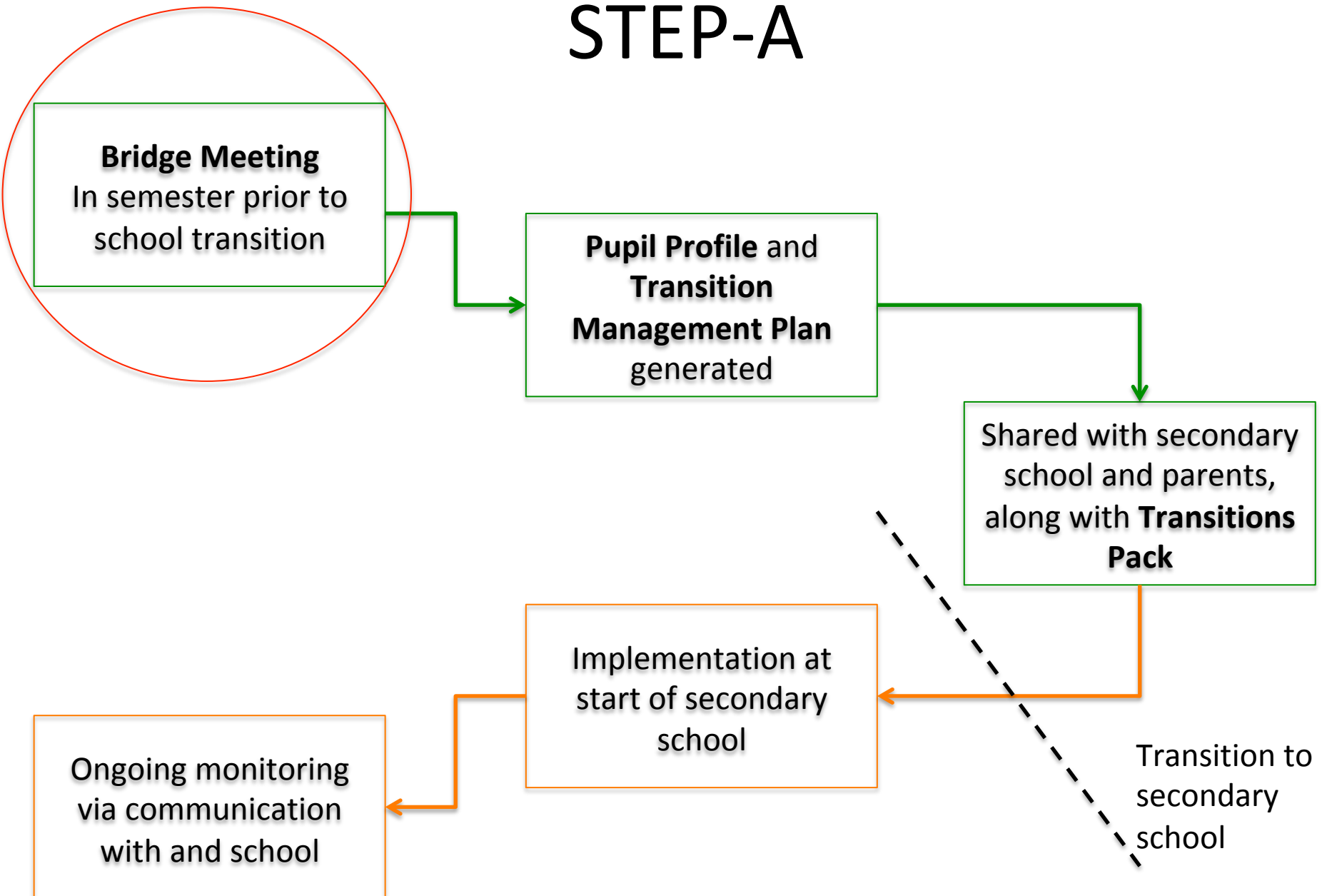**Bridge Meeting**
In semester prior to school transition

Pupil Profile and **Transition Management Plan** generated

Shared with secondary school and parents, along with **Transitions Pack**

Transition to secondary school

Implementation at start of secondary school

Ongoing monitoring via communication with and school
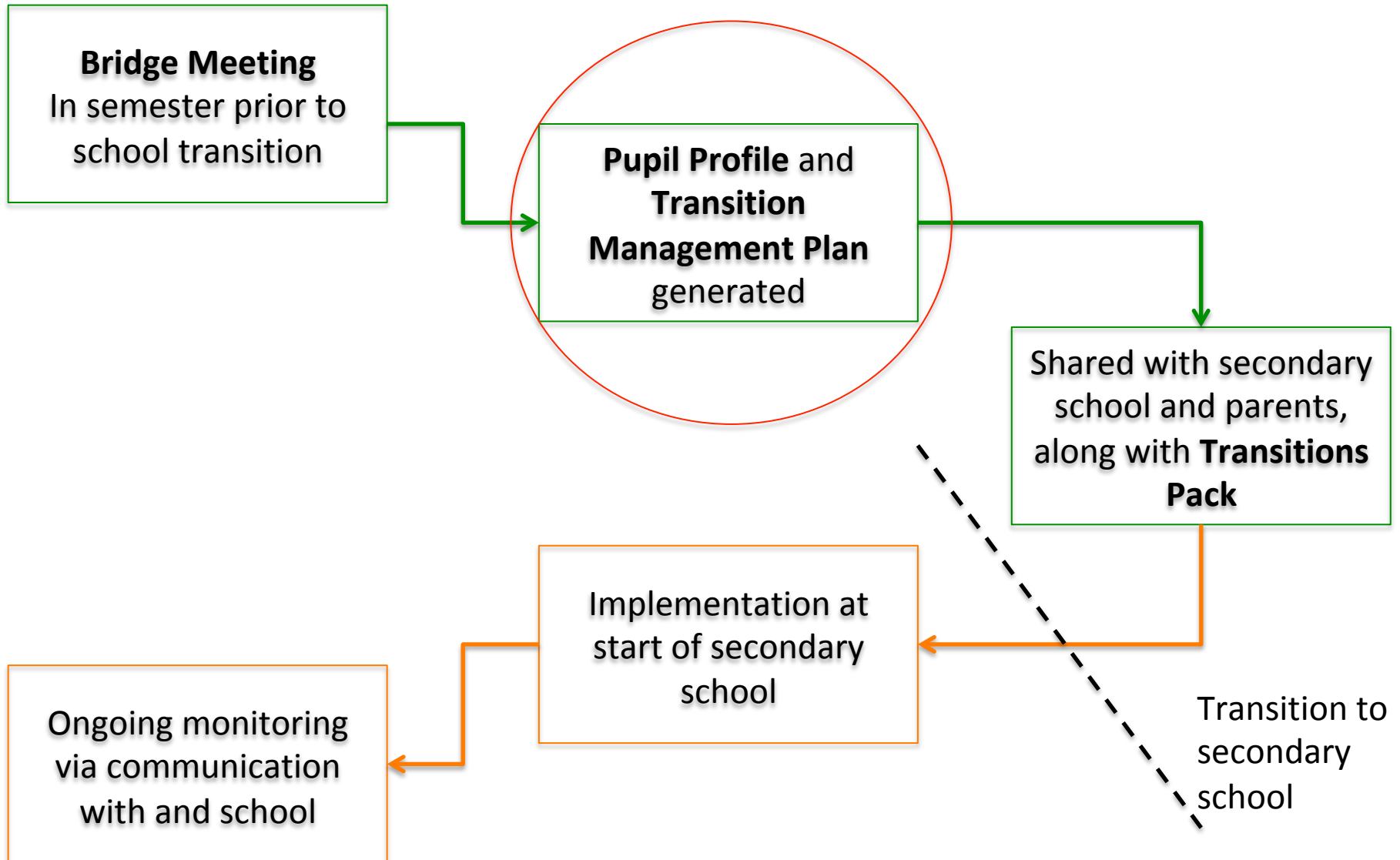
Transition Management Plan – Part 1

To be circulated to everyone at Bridge Meeting and a copy to kept with the child's file & with SENCO

During the Bridge Meeting parents/carers and professionals agreed on the following plan for transition to secondary school:

Transition plan for (name of child):	
Name of Primary School:	
Name of Secondary School:	
Primary school main contact:	
Secondary school main contact:	

General Transition Strategies

Delete as appropriate	Agreed dates	Relevant information
Visiting the school		
Maps or layout of school		
Photos of school rooms/ buildings		
Photos of school staff		
Allocated staff member identified		
Copy of school rules		
Copy of school timetable		
Any other strategies		

Transition Management Plan – Part 2 (example)

Specific Transition Strategies					
Area of support	**Details (reasons)**	**Strategies/resources**	**Notes**	**Person responsible**	**When**
Priority One (e.g. social interaction)	(e.g. child is eager to have friends but struggles to initiate friendships)	(e.g. Chapter 2, Social Interaction in Transition Pack e.g. Identifying a buddy e.g. Structured lunchtime activity with a child who has similar interests)	(e.g. primary teacher suggests David, a friend from primary school)	(e.g. Mrs. McCain, SENCO in secondary school)	(e.g. To be set up first term of secondary school)
Priority Two (e.g Challenging behaviour)	(e.g. challenging behaviour when there is a change in routine)	(e.g. Chapter 9, Challenging behaviour in pack).			
Priority					

Additional concerns for staff to be aware of:
Known motivators/interests: (e.g. music facts)
Triggers/dislikes: (e.g. group work)
Calming techniques:

STEP-A

Bridge Meeting
In semester prior to school transition

Pupil Profile and **Transition Management Plan** generated

Shared with secondary school and parents, along with **Transitions Pack**

Implementation at start of secondary school

Ongoing monitoring via communication with and school

Transition to secondary school
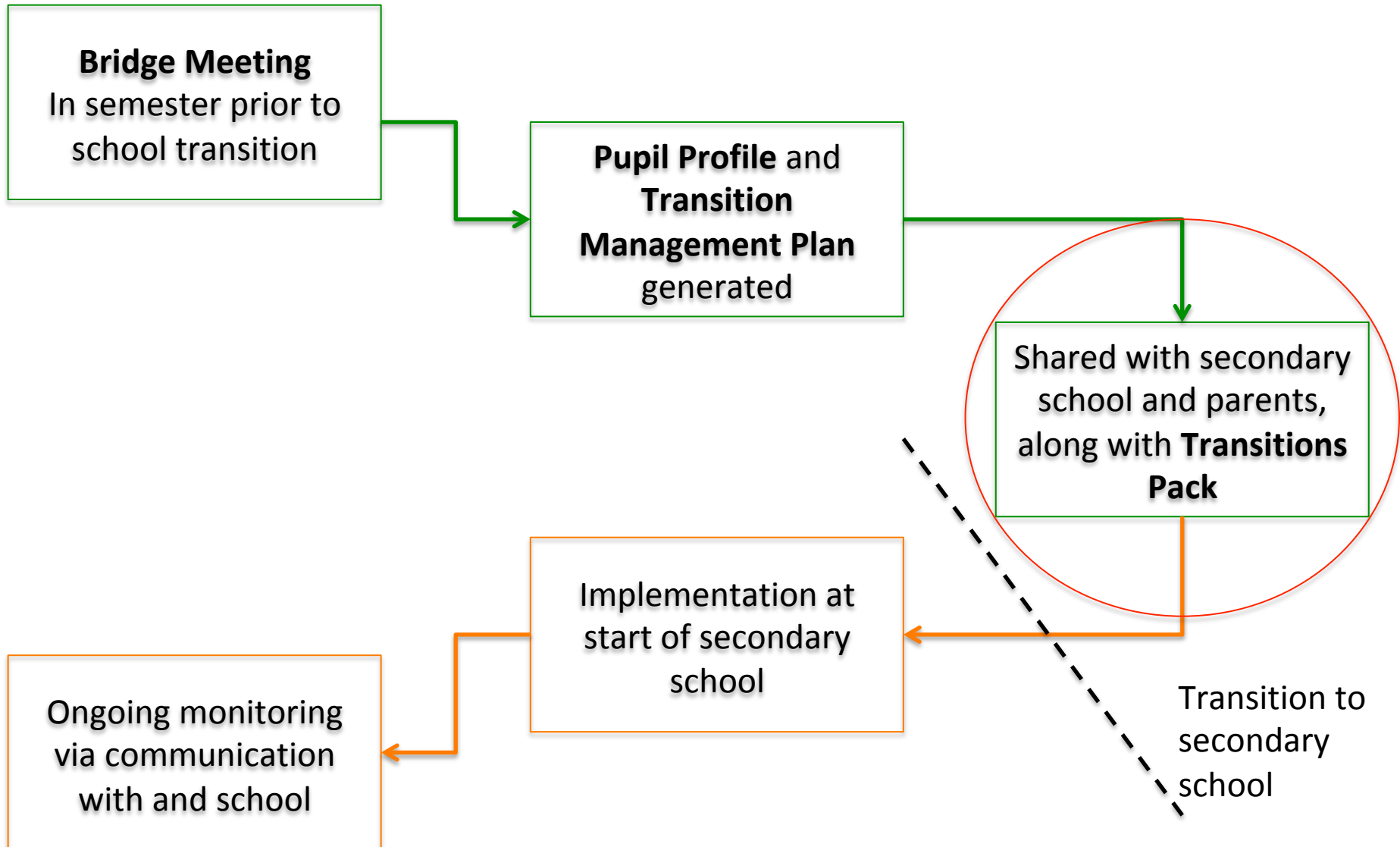
Autistic Spectrum Disorder and the Transition into Secondary School:

A handbook for implementing strategies in the mainstream school setting

Part Two:
Resource Chapters And Appendices

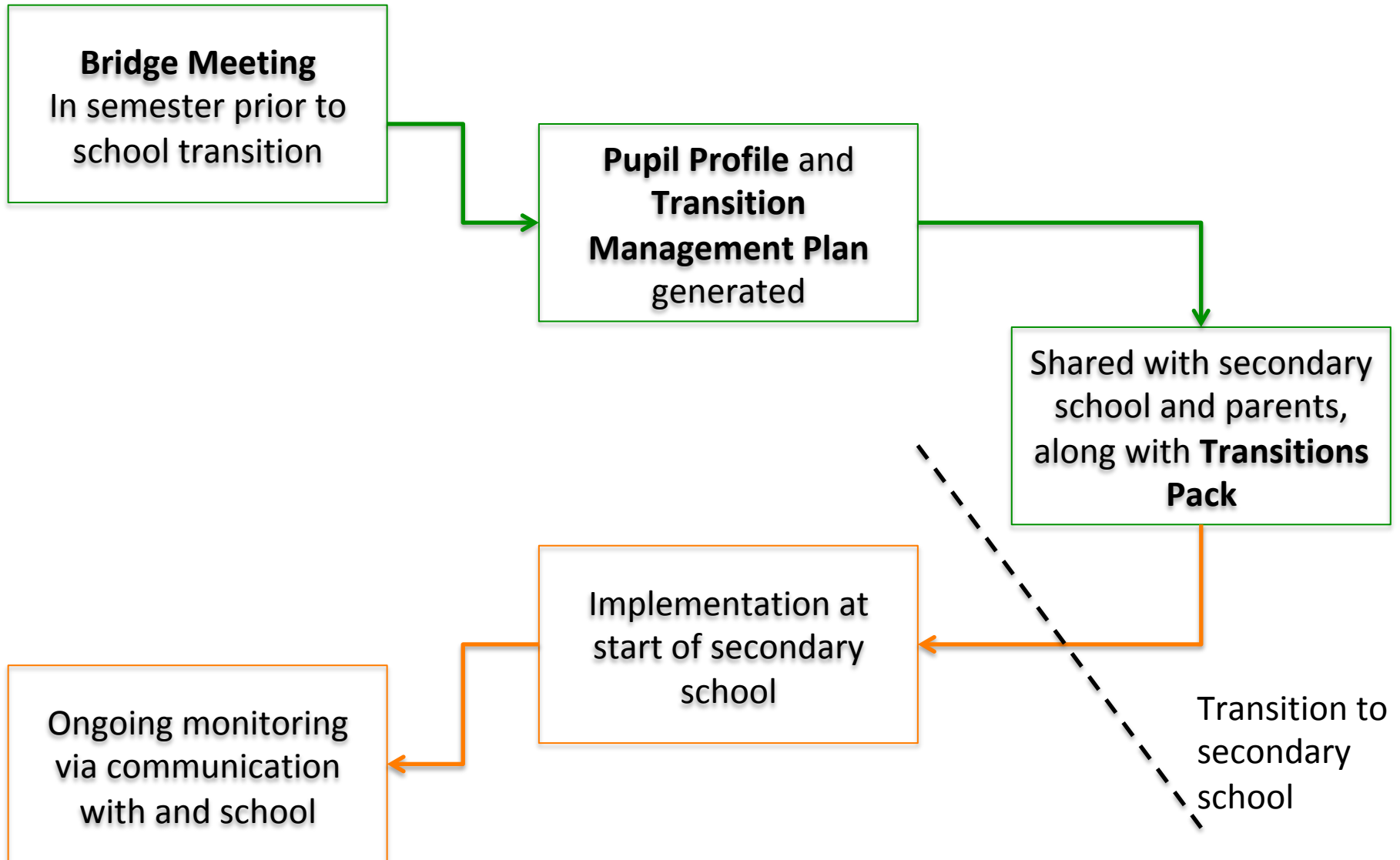## Management strategies for organisation and planning

■ **Goal, Plan, Do, Review approach**

All children with planning and organisational difficulties will benefit from the Goal, Plan, Do, Review approach, used by Ylvisaker, M., & Feeney, T. (2002). This is a way of encouraging them to go through the process of goal setting and planning that is essential to guiding effective behaviour. It can be applied to a range of tasks and settings including academic work in lessons, homework, coursework, practical classes like DT and leisure time. The worksheet in Appendix 19 should be used with children to guide the following process:

• **Goal**

When starting a task the child first needs to be clear about what their goal is. Once the child has been helped to work this out, it should be recorded on paper. Ideally this will mean that the child writes down the goal on their Goal, Plan, Do, Review worksheet. Depending on the child's verbal abilities, it may be helpful to use a visual prompt such as a picture or symbol.

STEP-A

Bridge Meeting
In semester prior to school transition

Pupil Profile and **Transition Management Plan** generated

Shared with secondary school and parents, along with **Transitions Pack**

Implementation at start of secondary school

Ongoing monitoring via communication with and school

Transition to secondary school

Outline of the talk

- The autism paradox
- The importance of the ecology in autism research
- Transition in autism: How do children with autism manage school transition?
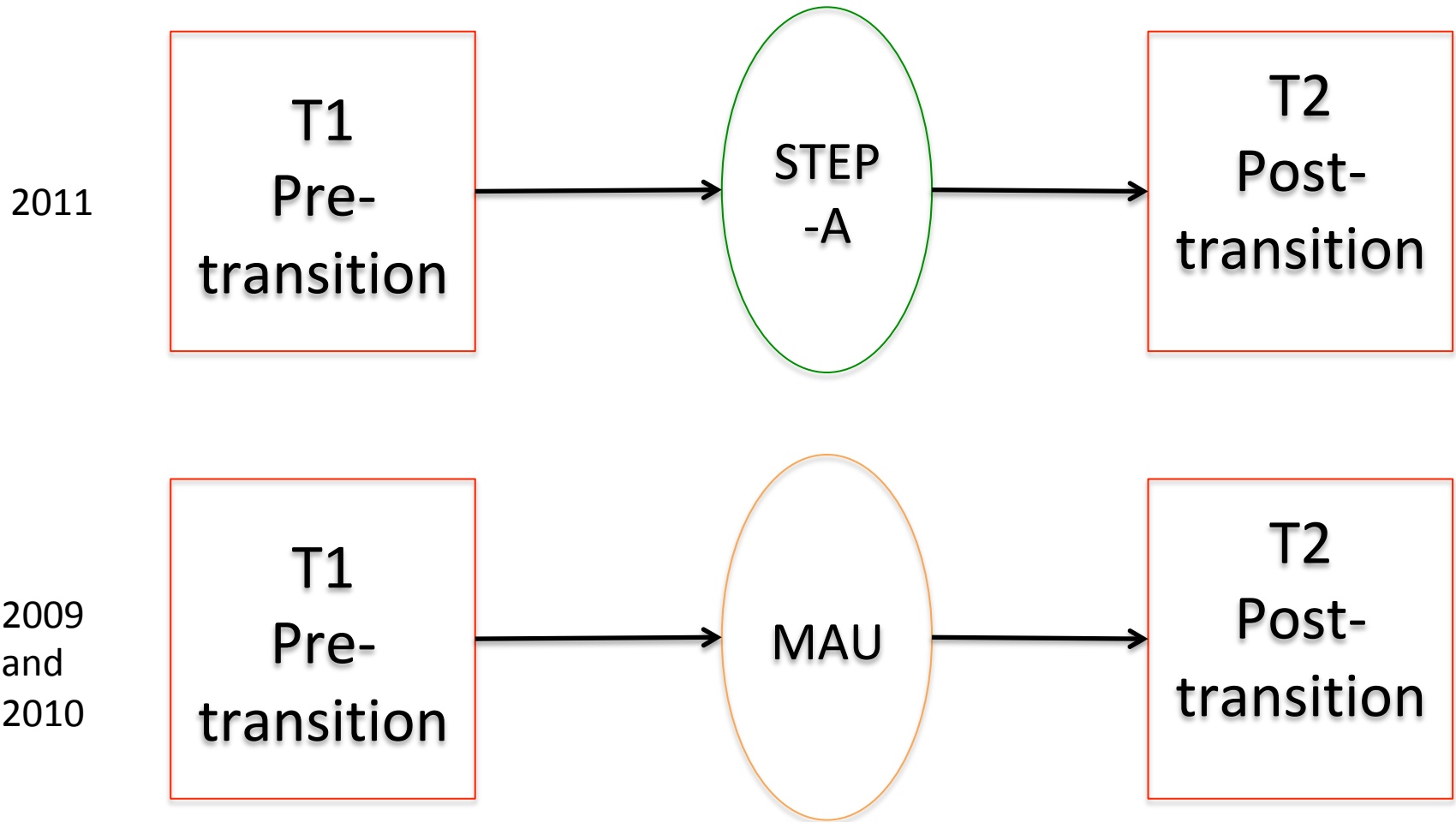- STEP-A
- Does STEP-A work?

Easing the transition to secondary education for children with autism spectrum disorder: An evaluation of the Systemic Transition in Education Programme for Autism Spectrum Disorder (STEP-ASD)

William Mandy[1], Marianna Murin[2], Ozlem Baykaner[3], Sara Staunton[3], Robert Cobb[3], Josselyn Hellriegel[2], Seonaid Anderson[3] and David Skuse[3]
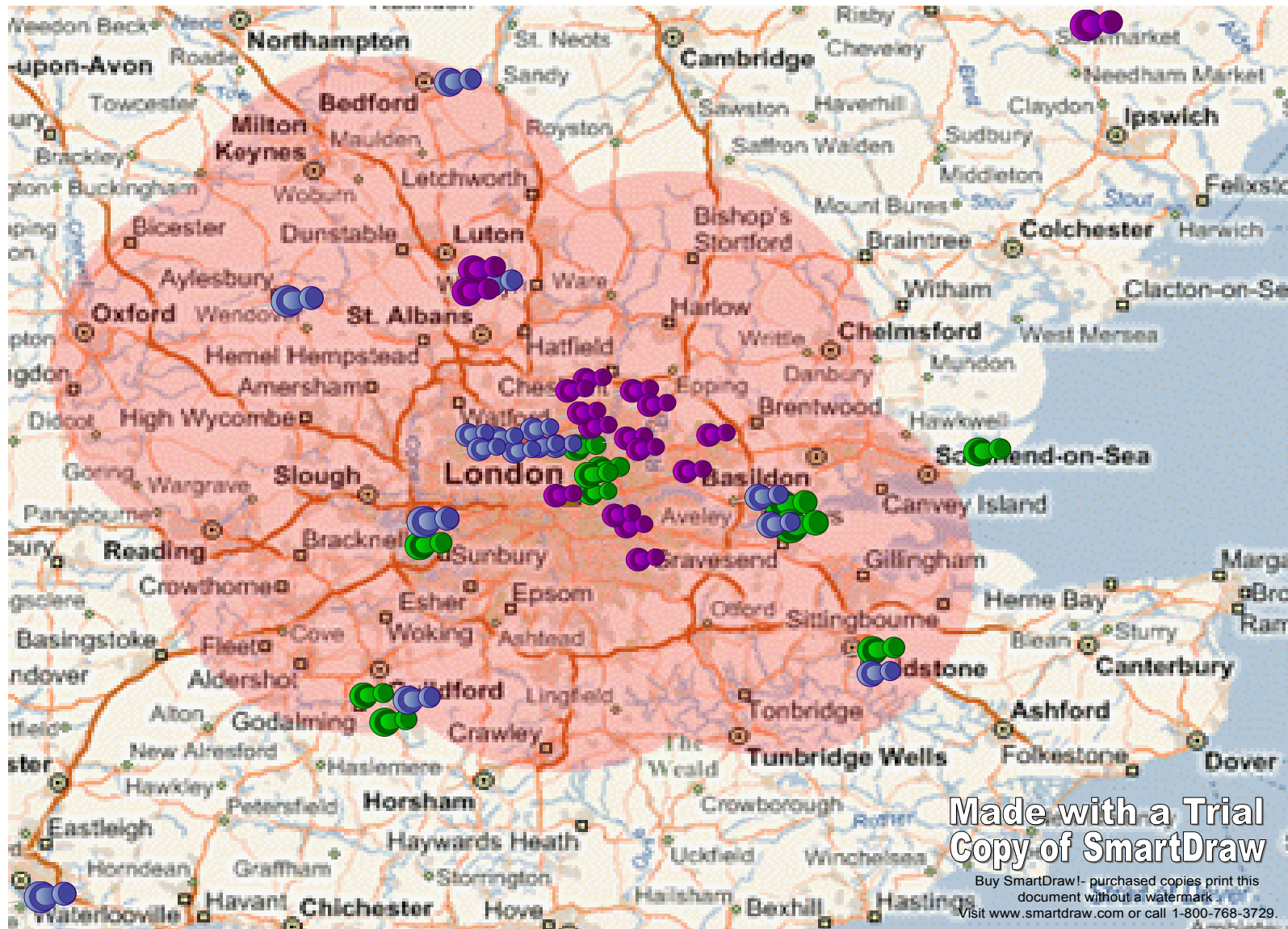
Aims of the study

① To investigate the feasibility and acceptability of STEP-A

② To estimate its efficacy for reducing maladaptation at school

③ To see if any teacher-reported effects generalize outside of school

Quasi-experimental design

2011

| T1 Pre-transition | → | STEP-A | → | T2 Post-transition |

2009 and 2010

| T1 Pre-transition | → | MAU | → | T2 Post-transition |

Geographical Representation of Participants

2009 participants

2010 participants

2011 participants

Table 1. Characteristics of the sample.

	Whole sample	STEP-ASD group	Control group	Significance of group difference
	N = 37	n = 17	n = 20	
Number of males (%)	30 (81.1%)	13 (76.5%)	17 (85.0%)	p = 0.680
Number identifying as 'White British' (%)	25 (67.6%)	10 (58.8%)	15 (75.0%)	p = 0.295
Mean age in years at transition (SD)	11.47 (0.44)	11.45 (0.27)	11.48 (0.55)	p = 0.876
Mean WISC-IV Full-scale IQ (SD)[a]	85.24 (18.51)	84.43 (20.22)	85.20 (16.12)	p = 0.835
Autism spectrum diagnosis				
Autism	11 (27.0%)	5 (23.5%)	6 (30.0%)	p = 0.328
Asperger's syndrome	15 (40.5%)	5 (29.4%)	10 (50.0%)	
ASD/atypical autism	11 (29.7%)	7 (41.2%)	4 (20.0%)	
Mean Social Communication Disorders Checklist	13.80 (5.68)	13.31 (5.51)	14.21 (5.93)	p = 0.648
Autistic symptom severity (SD)[b]				
Number with emotional and behavioural difficulties identified by clinical services (%)				
ADHD	7 (18.9%)	3 (17.6%)	4 (20.0%)	p = 1.000
Anxiety	6 (16.2%)	3 (17.6%)	3 (15.0%)	p = 1.000
Depression	2 (5.4%)	1 (5.9%)	1 (5.0%)	p = 1.000
OCD	1 (2.7%)	1 (5.9%)	0 (0%)	p = 0.459
Tic disorder	3 (8.0%)	0 (0%)	3 (15%)	p = 0.234
Behavioural problems	6 (16.2%)	2 (11.8%)	4 (20.0%)	p = 0.667
Level of special educational needs provision at mainstream school				
No additional support	1 (2.7%)	0 (0%)	1 (5.0%)	p = 0.501
Low intensity ('School Action')	4 (10.8%)	2 (11.8%)	2 (10%)	
Medium intensity ('School Action Plus')	12 (32.4%)	4 (23.5%)	8 (40%)	
Higher intensity ('Statement of special educational needs')	20 (54.1%)	11 (64.7%)	9 (45%)	
Office for Standards in Education (OFSTED) rating of school				
Primary school rated 'outstanding' or 'good' for care and guidance of pupils	33 (89.2%)	15 (88.2%)	18 (90%)	p = 1.000
Secondary school rated 'outstanding' or 'good' for care and guidance of pupils[c]	32 (88.9%)	16 (100%)[a]	16 (80%)	p = 0.114
Mean index of multiple deprivation for child's neighbourhood (SD)	22.92 (12.79)	24.37 (14.17)	21.69 (11.72)	p = 0.534

Was STEP-A feasible and acceptable to teachers?

For 15 of the 17 STEP-ASD kids we completed a post transition teacher interview :

❑ 11 (73%) reported that they found the bridge meeting useful
❑ 12 (80%) reported that the transition management plan was implemented
❑ 12 (80%) reported that pupil profile and transitions pack had been distributed to all relevant staff
❑ 13 (87%) reported actively using the transition pack
❑ 14 (93%) reported that the found the transitions pack helpful and user friendly
❑ 14 said that they would recommend STEP-ASD to a colleague

"It gave the parents a huge amount of reassurance and took away some of their fears about the settling into secondary school."
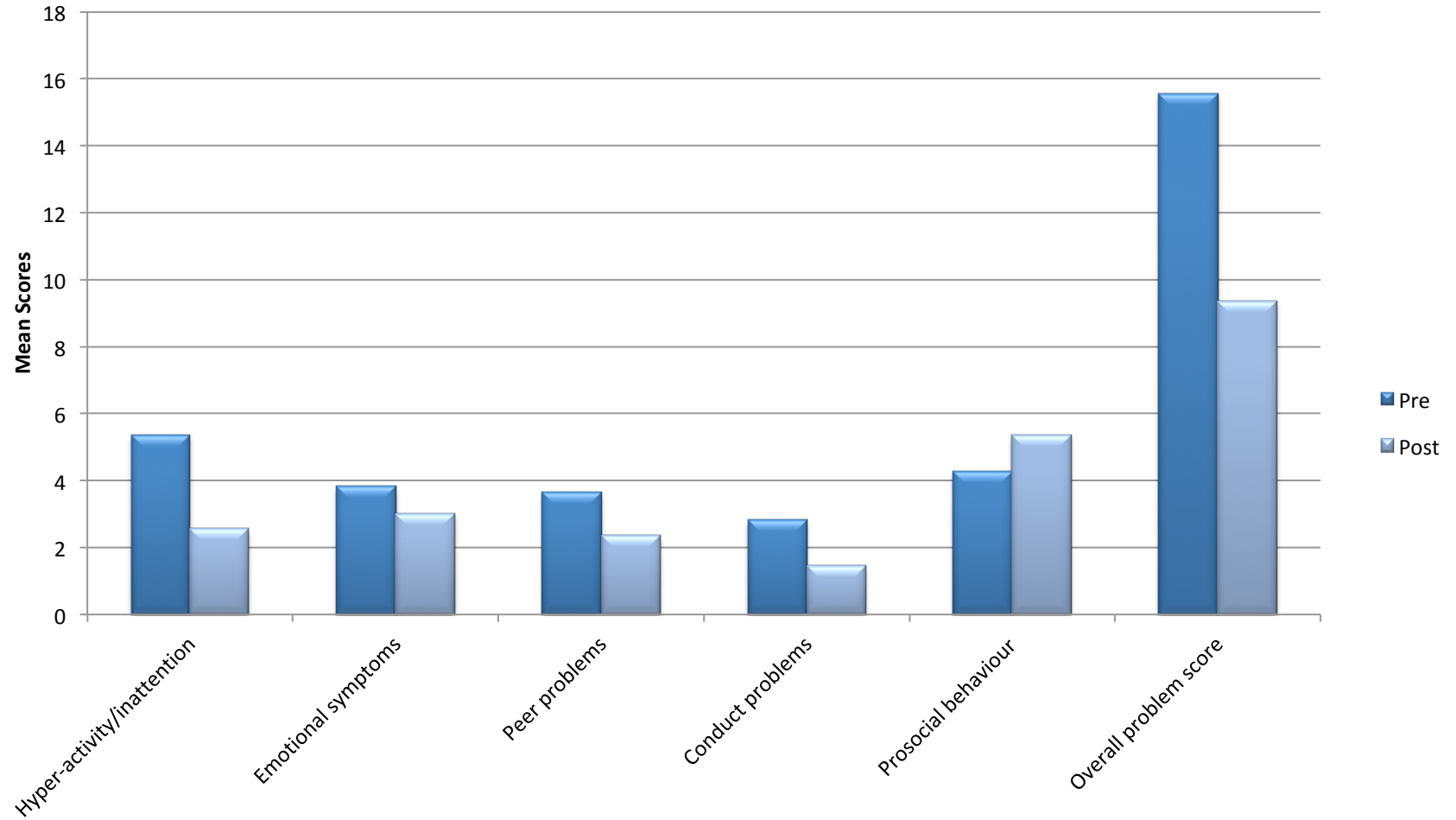
"Really accessible and really practical."

"In a sense we were prepared for the worst and we achieved the best."
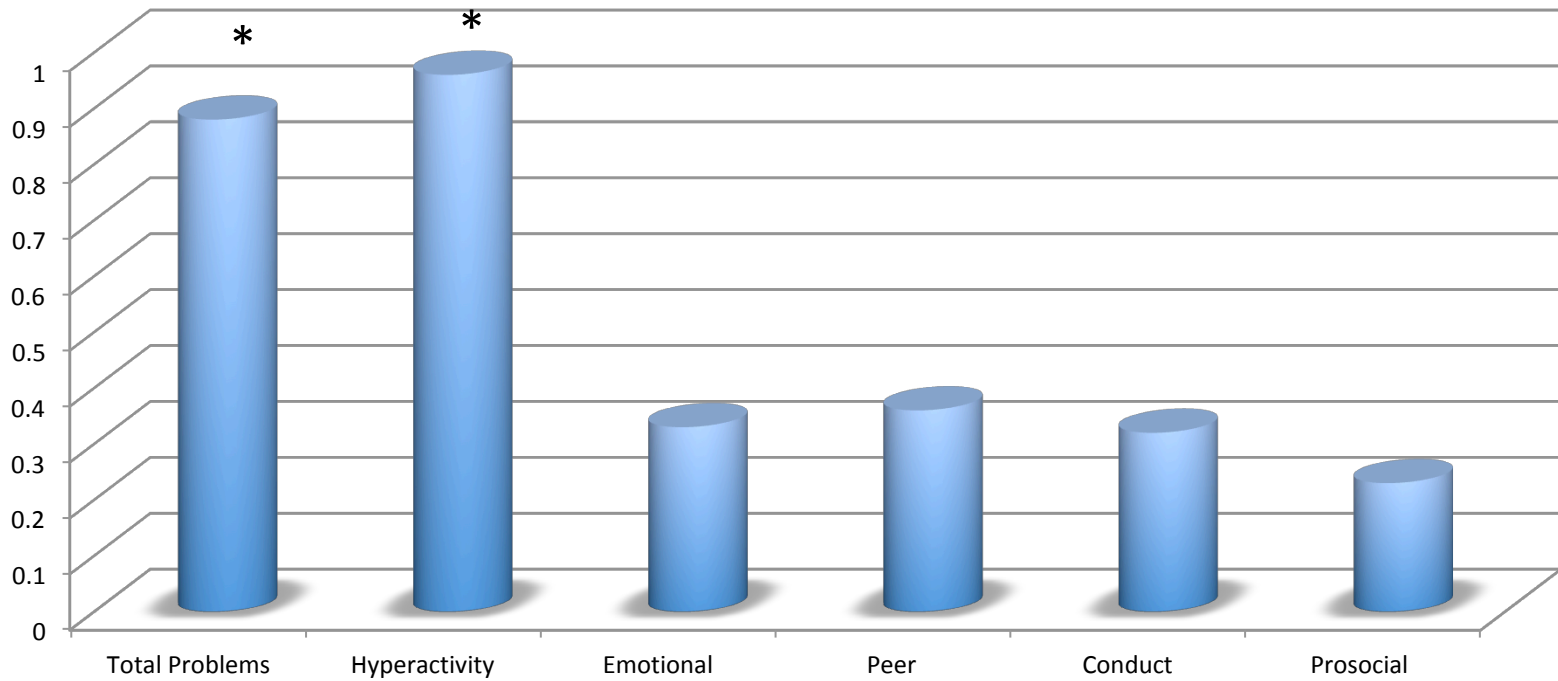
Primary outcome in control group
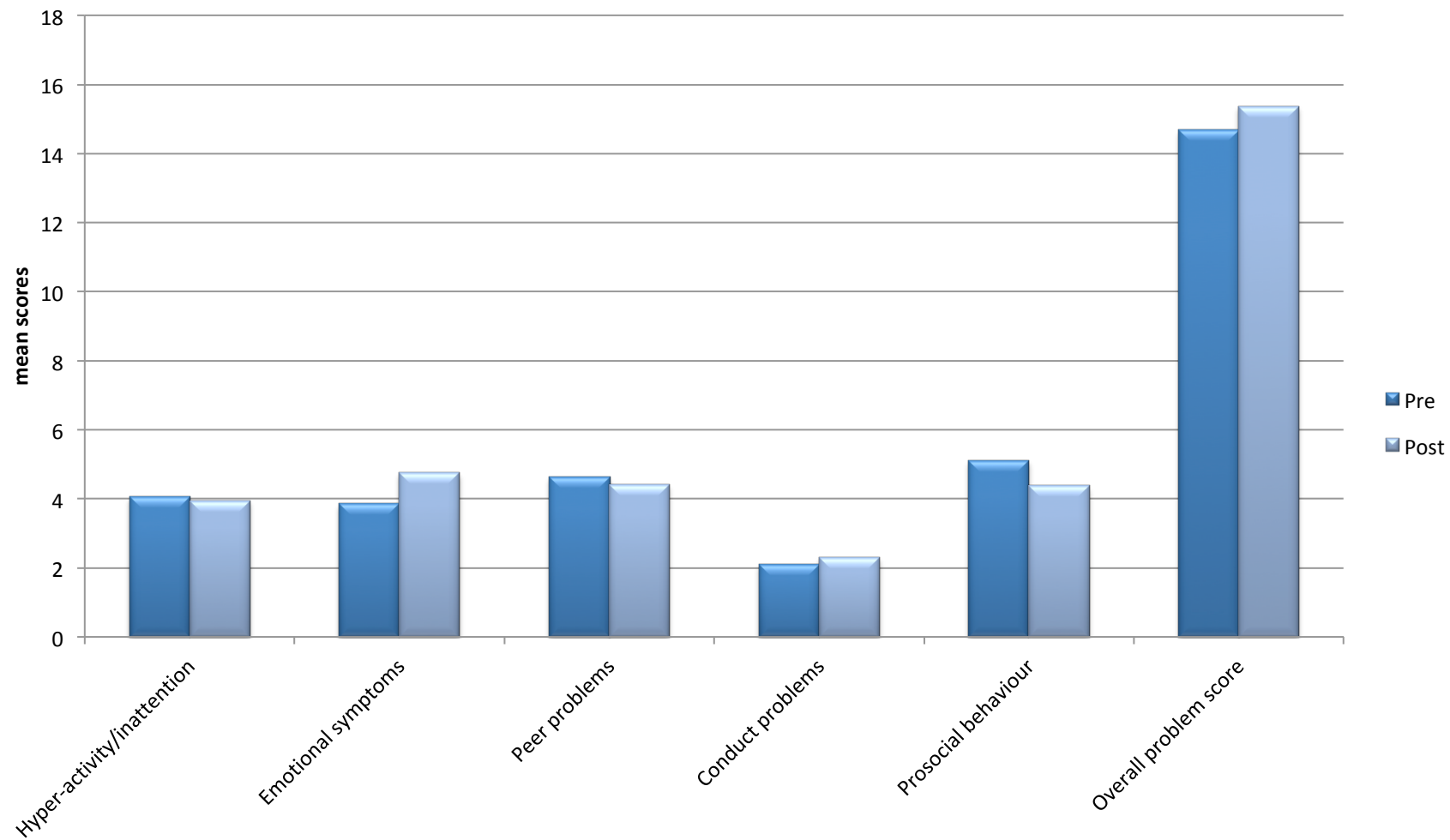
**Primary outcome
In experimental group**

Primary Outcome

Teacher SDQ
standardized difference at time 2

Conclusions

- Consideration of the ecology of people with autism can improve understanding of maladaption…

- …and suggest ways to promote adaption

- Modifications to the school environment may promote adaption and reduce psychopathology at school in autism

Future Directions

Thanks to

Great Ormond Street Hospital Charity
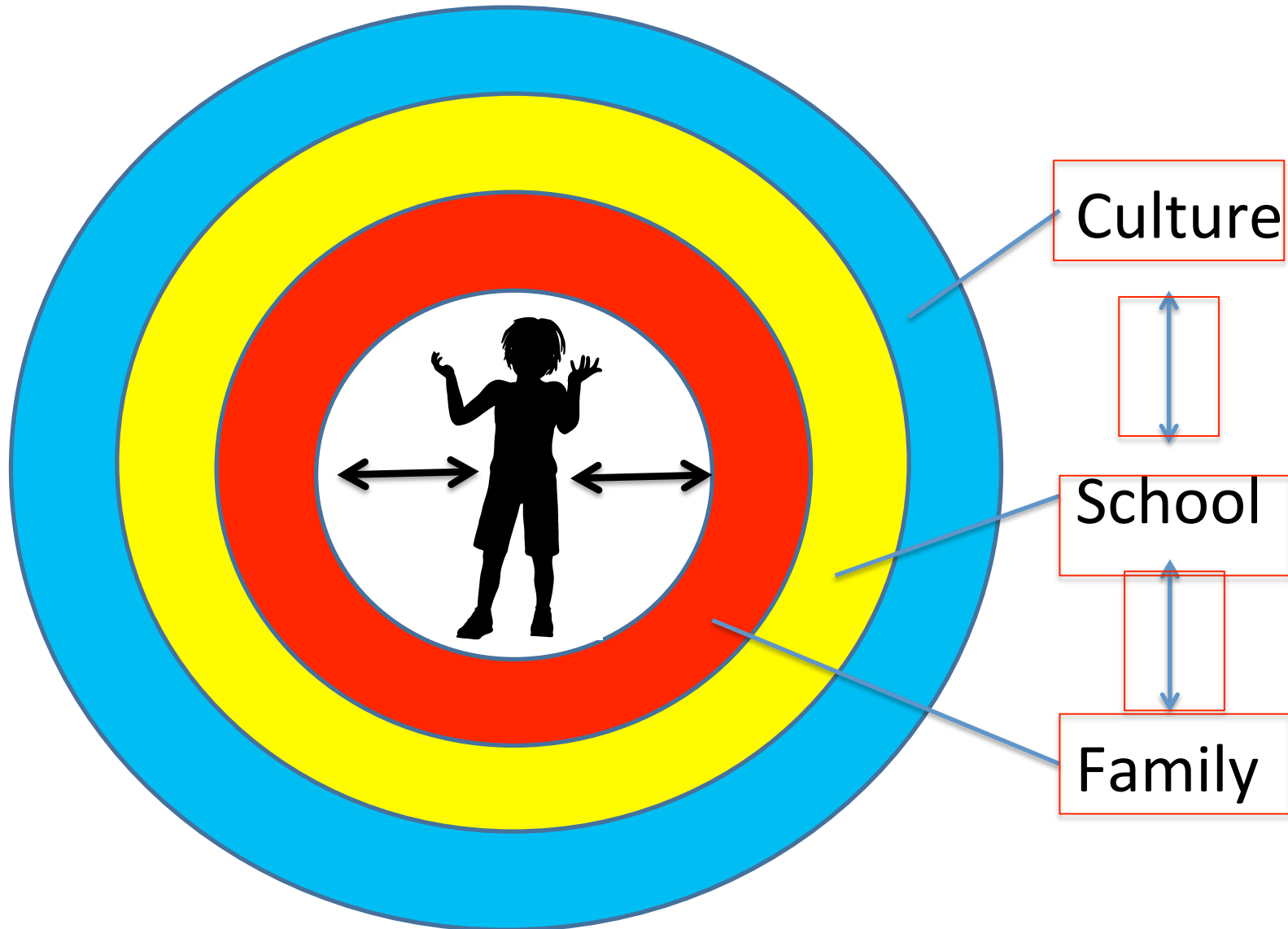
<u>STEP-A</u>

Marianna Murin

Seonaid Anderson

Sara Staunton

David Skuse

Ozlem Baykaner

Josselyn Hellreigel