Students return to school following ABI in Ireland

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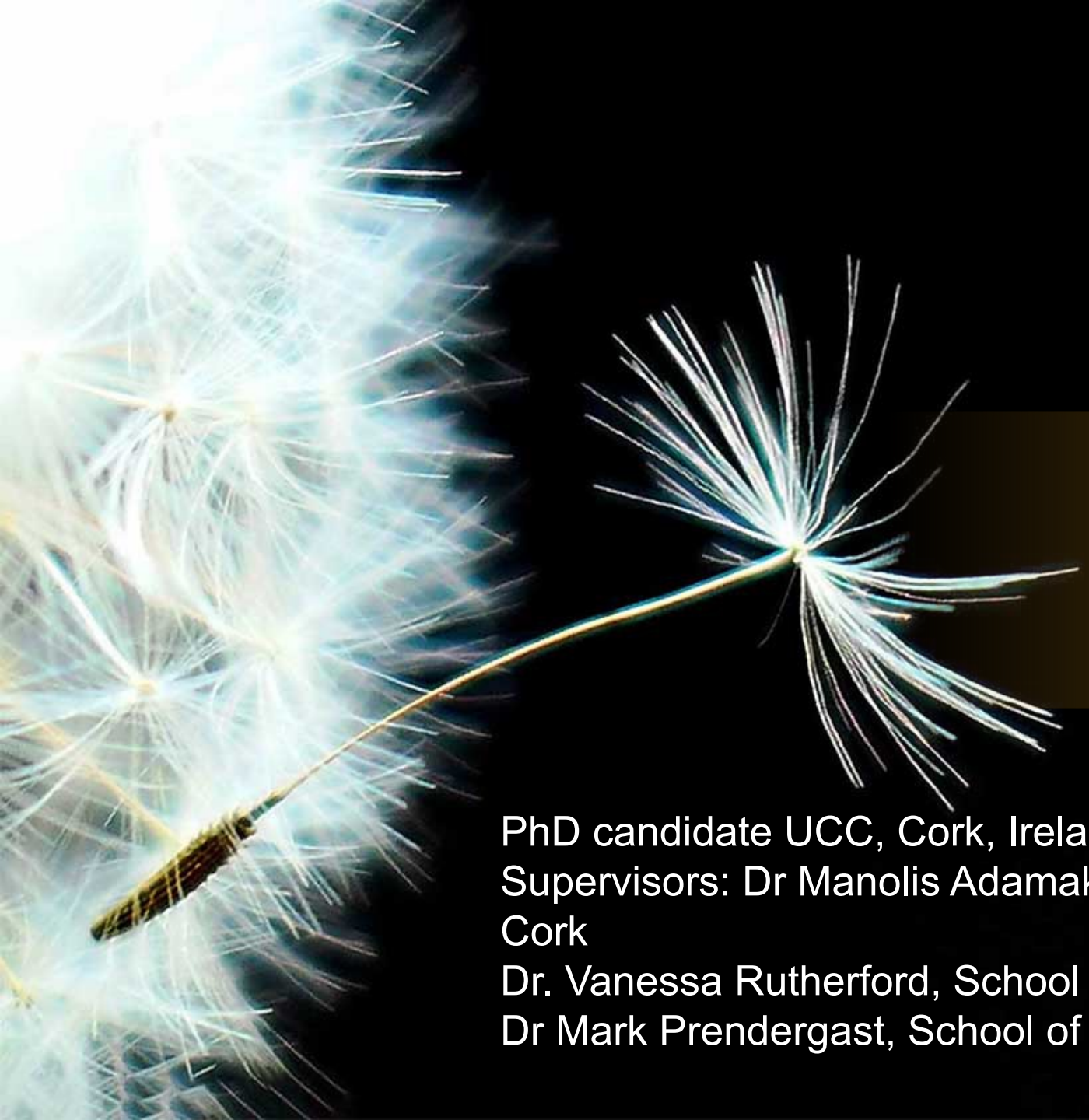

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ABI is often portrayed as a silent epidemic (Phillips, 2008; Giza *et al.*, 2009), as many individuals appear unaffected at the time of injury. For many, the recovery and return to regular school activity can be successful. However, for some, as the child continues to grow and develop, they may experience difficulties with more complex cognitive abilities and executive brain function (Ribbers *et al.*, 2018; Chea *et al.*, 2019; Linden, O'Rourke and Lohan, 2019; Zamani, Mychasiuk and Semple, 2019; Cook *et al.*, 2020; Bate, Turner and Fricke, 2021a; Stubberud *et al.*, 2022; Qiu and Ye, 2023).

Baldwin refers to the "Sleeper Effect" where cognitive difficulties and school failures emerge later despite an early, apparent recovery (Baldwin, 2006).

Acquired Brain Injury

Some literature

Potential, persistent, short and long-term effects in the cognitive, behavioural and social-emotional domains can range from mild to severe, can emerge later or can linger and, for some, become a chronic condition post-injury (De Schryver *et al.*, 2000; Thornhill *et al.*, 2000; Hawley *et al.*, 2004; Steinlin *et al.*, 2005; Lumba-Brown *et al.*, 2018)

Across the literature, misconceptions, misperceptions and misattributions around the impact of brain injury are found to persist among educators (Chapman and Hudson, 2010; Linden, Braiden and Miller, 2013; Block, West and Goldin, 2016b; Ettel *et al.*, 2016; Kahn *et al.*, 2018a).

Some literature

The return to school is, for some students, is an experience that has been characterised as guided by misinformation, misattributions, misconceptions and misinformed attitudes about brain injury and recovery (Chapman and Hudson, 2010; Roscigno, Fleig and Knafl, 2015; Block, West and Goldin, 2016a; Ernst *et al.*, 2016).

Parents' usually become the primary advocate for their child and the main source of information on their child's injury (Roscigno, Fleig and Knafl, 2015).

The Study

Research Questions

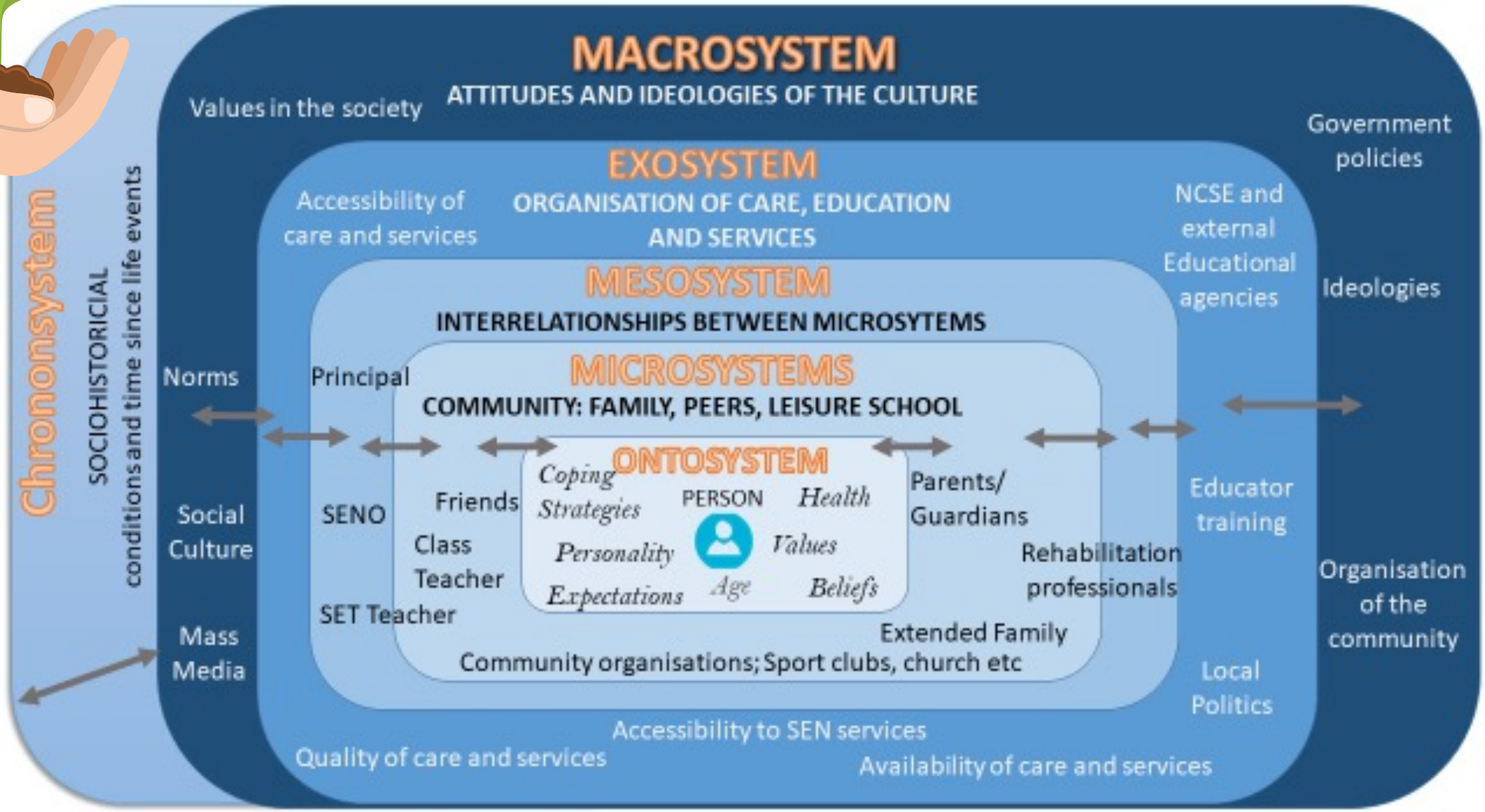
Are there knowledge gaps/misconceptions in the understanding of ABI among education professionals in Ireland as seen elsewhere in the literature?

What are the experiences of parents and teachers around supporting a child with ABI in their return to education?

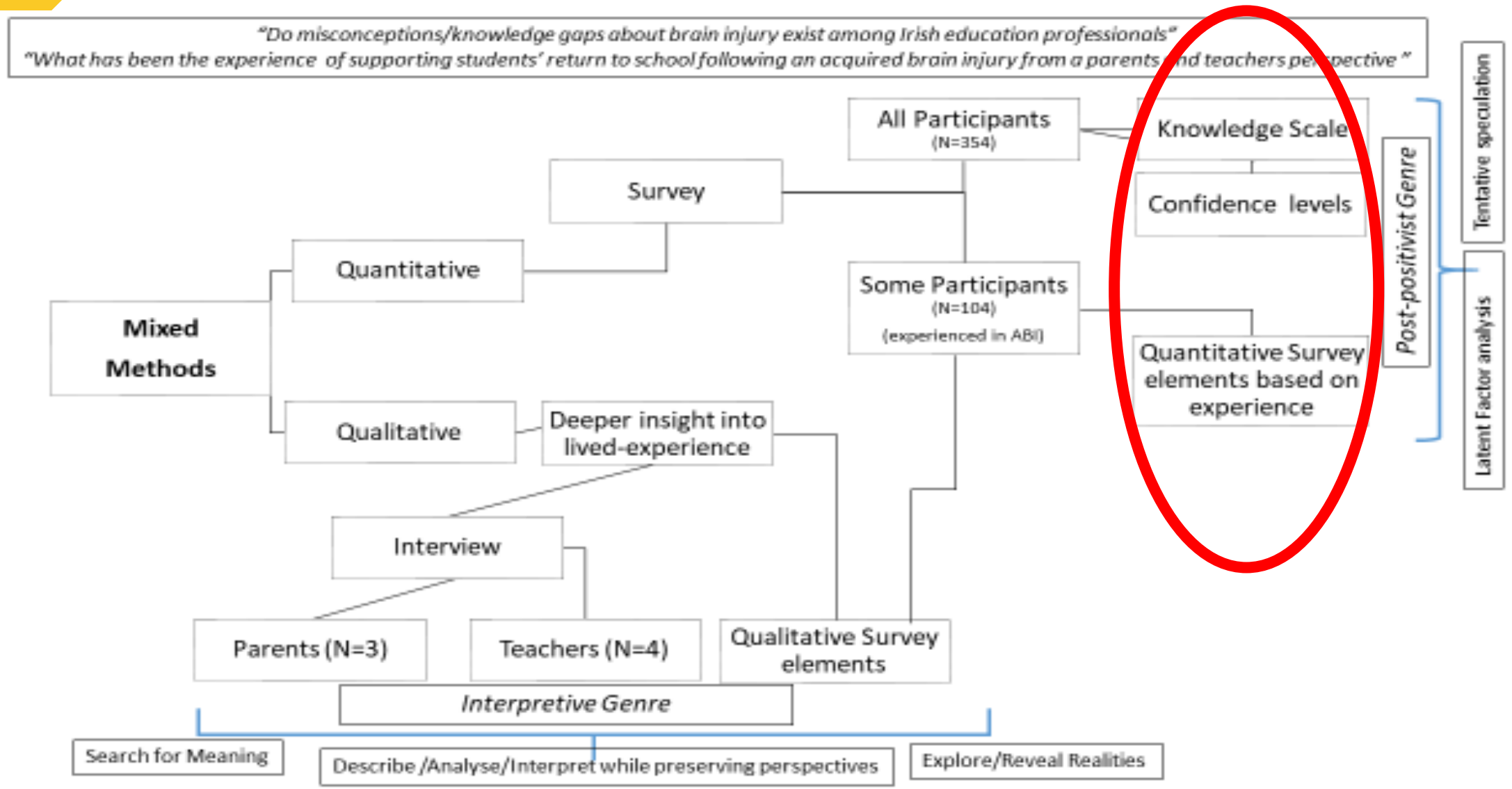
Methodology

Mixed Methods

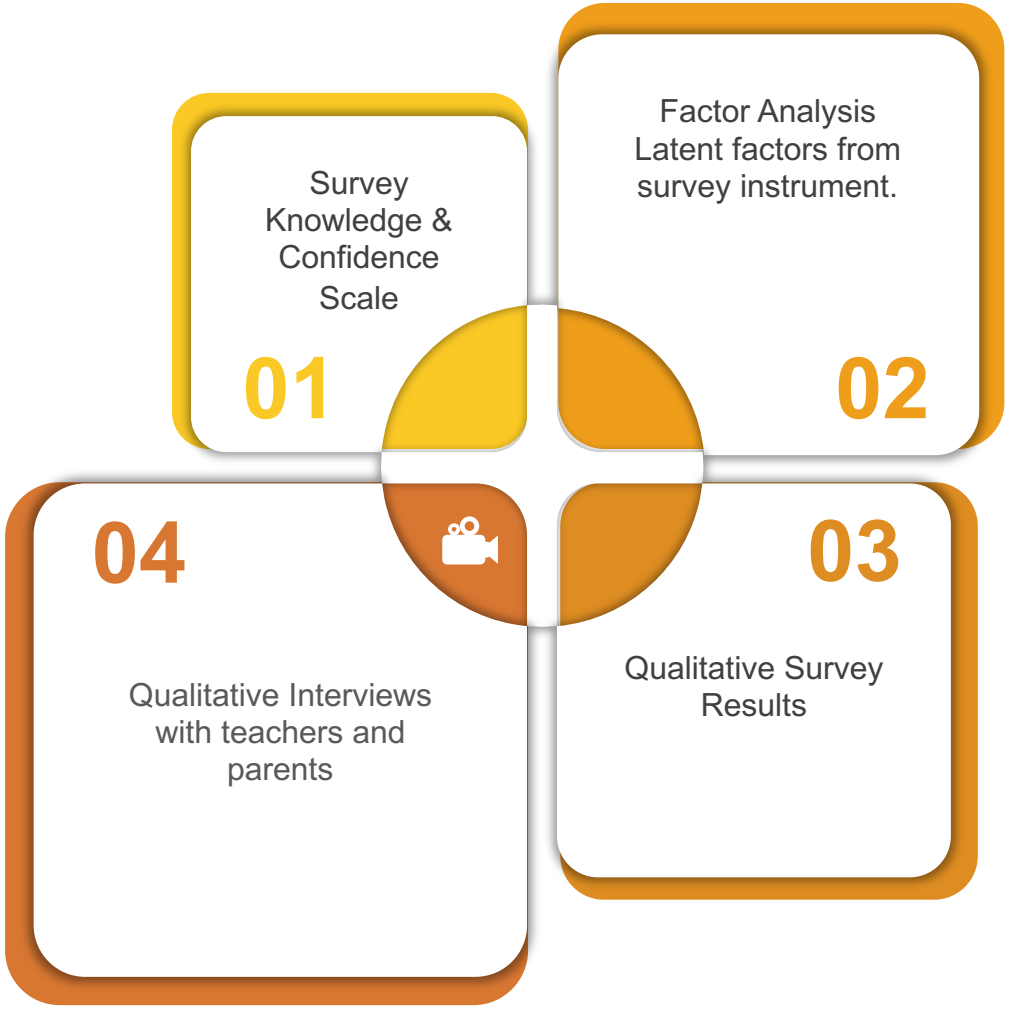
Ecological Framework



Study Design



Results



To Follow in this presentation

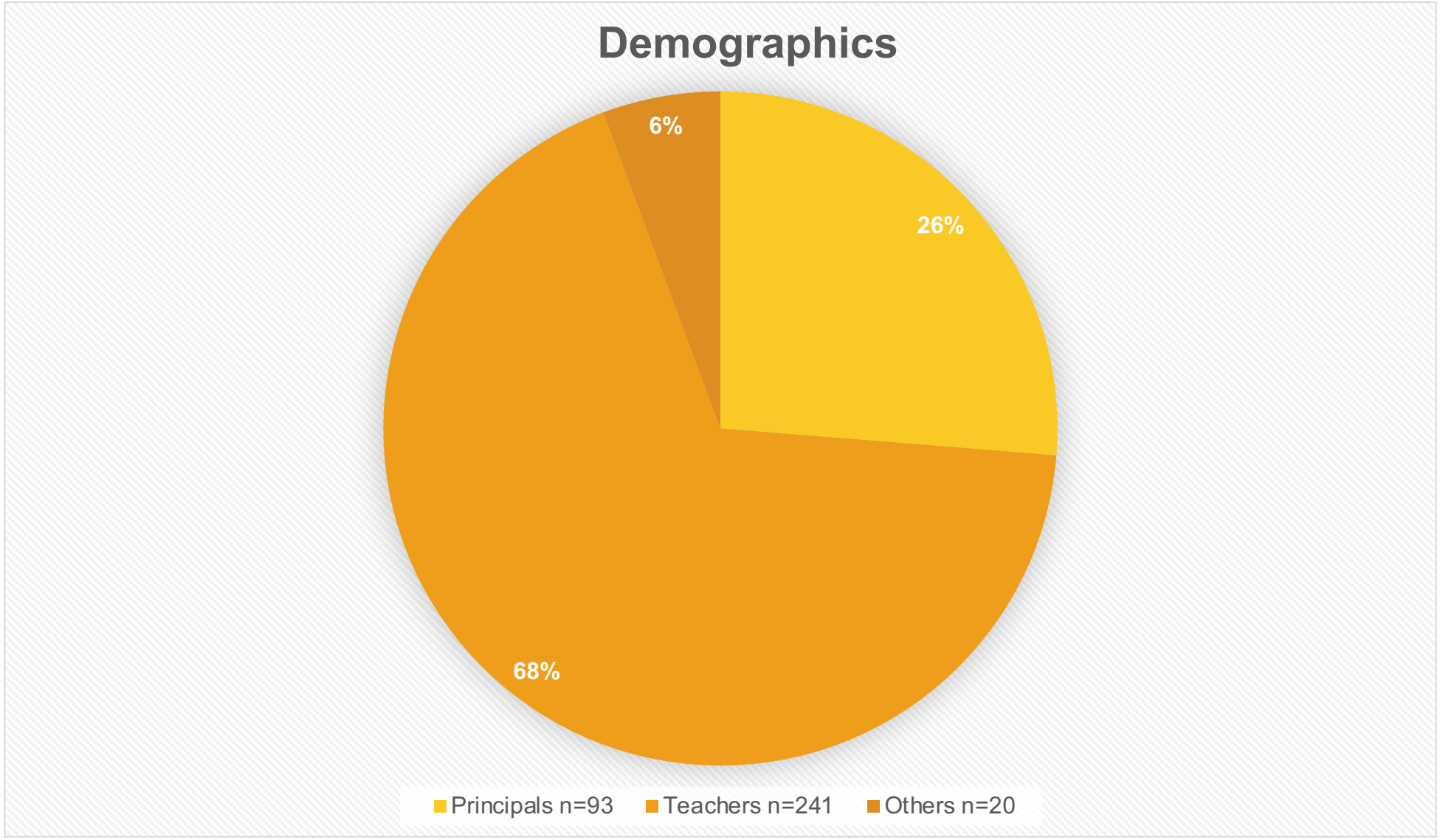
A brief overview of the demographics and descriptive data from the survey

An outline of the underlying factor structure of the survey instrument

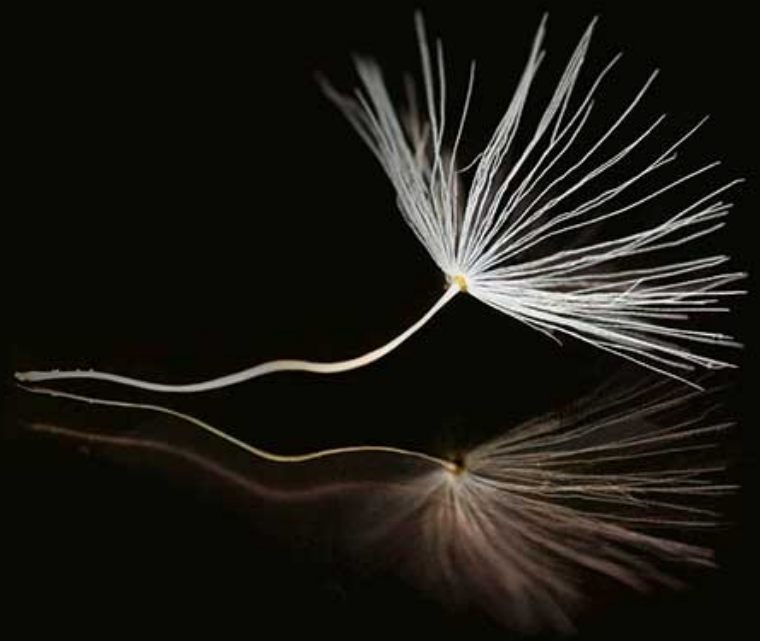
A brief outline of the statistical analysis

A flavour of the qualitative data

Survey


Demographics
6%
26%
68%
Principals n=93
Teachers n=241
Others n=20

Are there gaps/misconceptions in educator knowledge of ABI?



Results

In Knowledge Survey

The knowledge section of the survey exposed gaps in educators' understanding of TBI consistent with other studies (Linden et al, 2013)

Educator Scores (Correct/Incorrect)

26% of participants (n=90) scored 60% or above. 42% (n=150) scored in the 40-59% range, with 32% (n=114) scoring between 0-39% range. 3% (n=13) recorded a score of zero with 1% (n=5) demonstrating substantial misconceptions on the subject.

Uncertainty/"Don't know" option

Many participants expressed a lack of knowledge across all areas of the topic ("Don't Know" was chosen in 42% of all options).

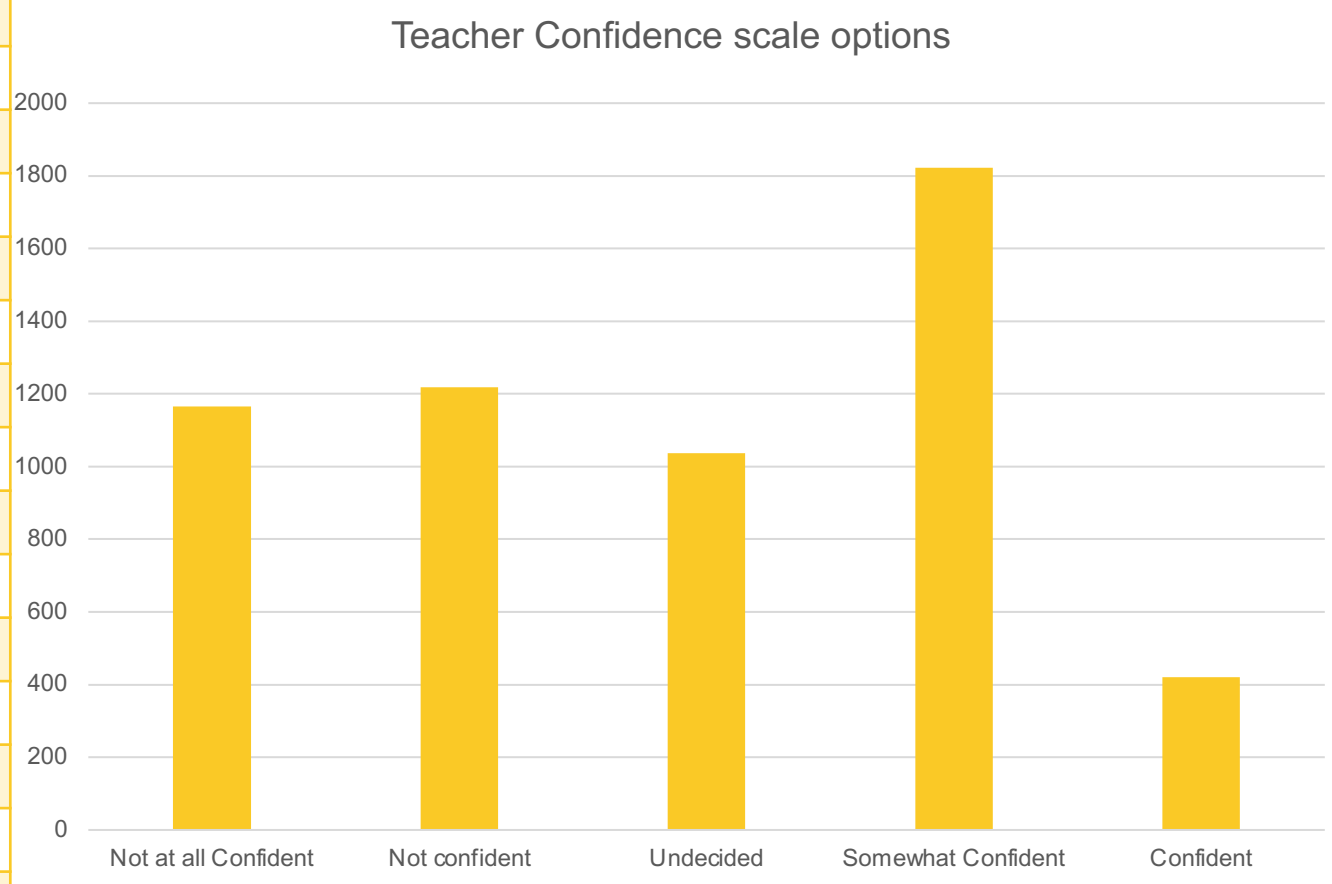
No of Participants	% Score
3 (0.8%)	80-100
87 (25%)	60-79
150 (42%)	40-59
83 (23%)	20-39
31 (9%)	0-19

Misconception vs Lack of knowledge

Frequency of response options in Knowledge Scale			
1456	1	Strongly disagree	9.6%
2646	2	Disagree	17.4%
6341	3	Do Not Know	41.7%
3739	4	Agree	24.6%
1040	5	Strongly Agree	6.8%

Educator Confidence

Social Inappropriateness
Difficulties with peers
Emotional Problems
Lack of insight into new needs
Language/Communication
Memory Difficulties
Attention Span
Variability in learning rate
Interpreting/Applying assessment
Assessing academic needs
Assessing problems of daily living
Designing a targeted IEP
Implementing a targeted IEP
Evaluating a targeted IEP
Promoting student inclusion
Facilitating peer relationships



Factor Analysis

Factor 1

Brain Injury Sequelae.

Factor 2

The Recovery

Factor 3

Instruction and intervention.

Factor 4

Insight.

Factor 5

Hidden Injury

Factor reduction

Factor analysis resulted in the retention of 33 items on the survey scale.

Experience of teaching a student with ABI & knowledge scores

	Experience of working with a Student with brain Injury		
	Yes (n= 104)	**No (n=250)**	**Effect Size**
Factor 1	25.23 (SD 4.716)	24.32 (SD 4.21)	d=.210 95% CI[-.020 - .439]
Factor 2	34.04 (SD 4.93)*	32.46 (SD 4.61)*	d=.336 95% CI[.106 - .566]
Factor 3	35.70 (SD 4.81)*	34.35 (SD 4.13)*	d=.311 95% CI[.081-.541]
Factor 4	16.63 (SD 2.81)	16.47 (SD 2.47)	d=.059 95% CI[-.169-.288]
Factor 5	11.55 (SD 1.98)	11.53 (SD 1.90)	d=.010 95% CI[-.218-.239]

Independent sample T-Tests

T-tests in each factor revealed significant differences in the area of Brain Injury Recovery (Factor 2) and Instruction and intervention (Factor 3)

Impact of training on scores

	Reported Training in the area of Brain injury		
	Yes (n=62)	**No (n=292)**	**Effect Size**
Factor 1	25.85 (SD 5.06)	24.32 (SD 4.18)	d= -.354 95% CI[-.020 - .439]
Factor 2	35.21(SD 3.75)*	32.43 (SD 4.81)*	d= -.597 95% CI[-.874- - .319]*
Factor 3	36.74 (SD 4.81)*	34.33 (SD 4.17)*	d= -.564 95% CI[-.840- - .286]*
Factor 4	16.97 (SD 8.78)	16.42 (SD 2.52)	d= -.213 95% CI[-.487- .062]
Factor 5	11.98 (SD 2.17)	11.44 (SD 1.85)	d= -.286 95% CI[-.560 - - .010]

Independent sample T-Tests

T-tests in each factor revealed significant differences in the area of Brain Injury Recovery (Factor 2) and Instruction and intervention (Factor 3)

Personal Experience of a Brain Injury

Personal Experience

	None (N=280)	Mild (N=42)	Moderate/Severe (N=30)	Sig	η^2
Factor 1	24.36 (SD 4.16)	24.02 (SD 4.22)	**27.67* (SD 5.51)**	<.001*	.050 *
Factor 2	32.82 (SD 4.88)	32.29 (SD 4.69)	34.70 (SD 3.131)	.159	.015
Factor 3	34.50 (SD 4.19)	34.74 (SD 4.51)	36.70 (SD 5.351)	.021	.028
Factor 4	16.34 (SD 2.44)	17.07 (SD 2.43)	17.57(SD 3.46)	.011	.031
Factor 5	11.43 (SD 1.828)	11.88 (SD 1.864)	11.97 (SD 2.684)	.236	.012

One-way ANOVA

The one-way ANOVA revealed statistically significant differences between the groups based on overall score (F(3,350)=[6.405], p=<.001)

Statistically significant differences were associated with Brain Injury Sequelae (Factor 1) for those with experience of Mod/Severe injury

Experience of a family member with ABI

Family Member

	None (N=262)	Mild (N=51)	Moderate/Severe (N=37)	Sig	η^2
Factor 1	24.21 (SD 4.32)	24.69 (SD 4.26)	**27.22 (SD 4.32)***	.001*	.044
Factor 2	32.72 (SD 4.84)	32.47 (SD 4.71)	35.03(SD 3.89)	.041	.023
Factor 3	34.42 (SD 4.23)	34.76 (SD 4.48)	36.89 (SD 4.68)	.012	.031
Factor 4	16.48 (SD 2.54)	16.75 (SD 2.39)	16.70 (SD 2.97)	.316	.010
Factor 5	11.29 (SD 1.84)	12.06 (SD 2.03)	**12.51(SD 2.01)***	<.001*	.051

One-way ANOVA

The one-way ANOVA revealed statistically significant differences between the groups based on overall score (F(3,350)=[7.969], p=<.001)

Statistically significant differences were associated with *Brain Injury Sequelae* (Factor 1) and *Hidden Injury* (Factor 5) for those with experience of a family member with Moderate/Severe injury

Implications

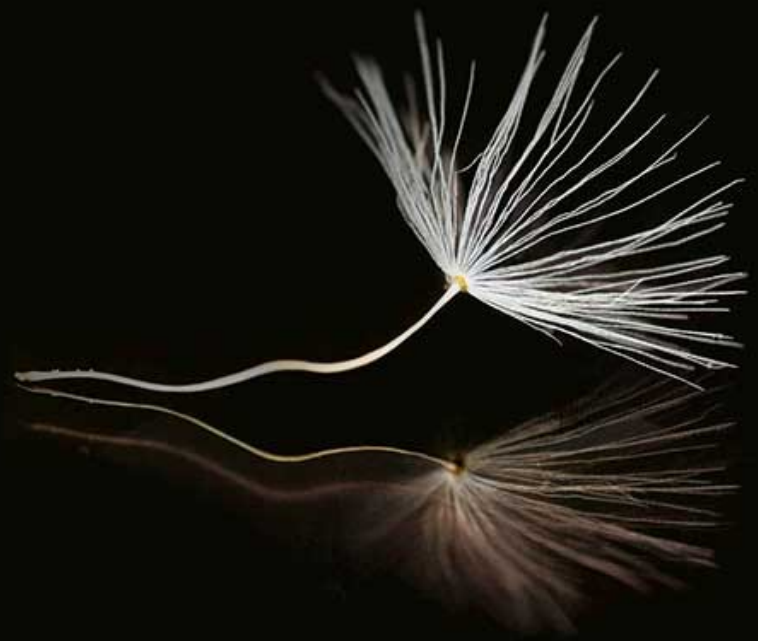
Results suggest that there may be delays in the provision of appropriate support to students as educators may

a. Have gaps in knowledge of the needs of students with ABI
b. Rely on personal experiences for information and expectations of recovery
c. Adopt a "wait and see" approach to interventions based on misconceptions

Training needs to be targeted across all factors involved in supporting students' cognitive and socio-emotional recovery needs.

Implications

Given the subtlety and invisibility of post-ABI sequelae the disparity between knowledge and self-reported confidence levels may suggest that educators are unaware of their knowledge gap and therefore unlikely to seek assistance or training to ensure appropriate support is provided for students.



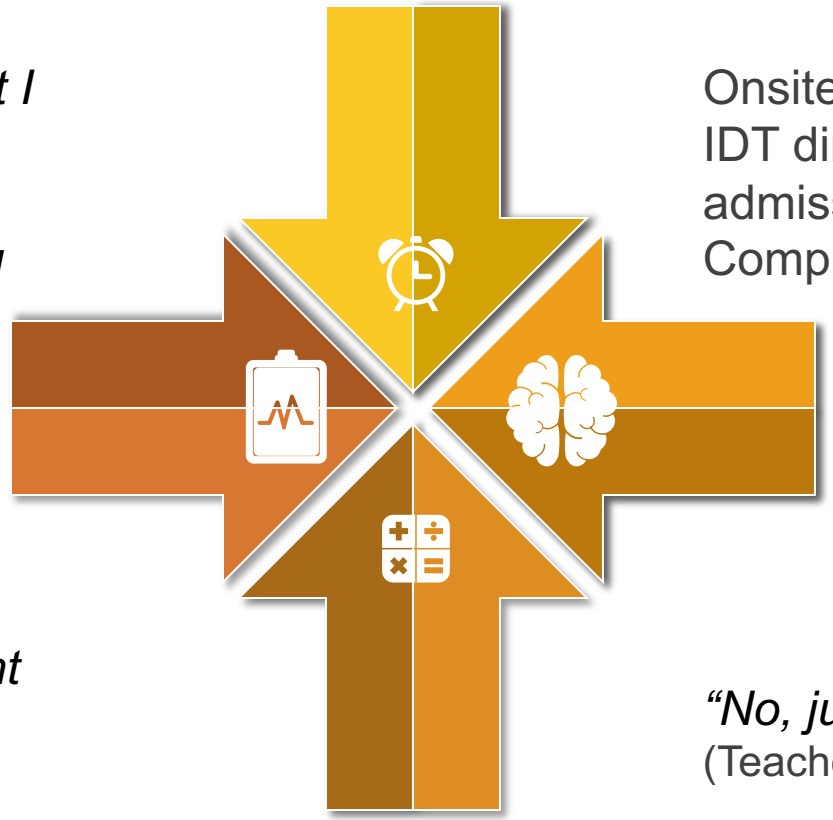
Themes emerging from teachers' experiences

Professional Isolation

"I have I have to say that. I feel that I was very much on my own in the school".
I did ask you know, "where can you tell me where do I start" (Teacher 1)

Acknowledged need for training

NCSE training is the most important aspect of training.
It is different to any other type of teaching you will have ever have taught before. (survey comment)



Developing understanding Complexity of needs

Onsite NRH teacher part of IDT team
IDT direct support to teachers during admission via video link
Comprehensive discharge planning

Inter-disciplinary Approach

"No, just try. Just figure it out yourself "
(Teacher 2)

Parent Journey

Bring the Education Community Into This Conversation

Clinical pathways are being developed in the health sector.
Educational policy is lacking in this area.
As the new SEN model gives autonomy at the local level, decisions around resource allocation need to be made from an informed position.

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THANK YOU