

SPECIAL EDUCATION TEACHERS' ATTRIBUTIONS AND THE FACTORS THAT INFLUENCE THEM, PRE AND POST COMPLETION OF A GRADUATE QUALIFICATION IN SPECIAL EDUCATION

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Abstract

Aims: The study aimed to explore the factors that predict Irish special education teachers' attributions towards students with and without special educational needs (SEN). Predictive variables included teachers' role, length of SEN experience, graduate training status, teacher efficacy and attitudes toward people with disabilities. The relationship between teachers' roles (primary, post-primary, and special school) and their attributions towards students with and without SEN was also examined. Finally, a pre-post comparison group correlation was employed to examine if there were differences in special education teachers' efficacy for inclusive practice, attitudes towards people with a disability and attributions towards students with and without SEN, pre- and post-completion of a postgraduate qualification in SEN. **Method:** Special education teachers (SETs) enrolled in a Graduate Diploma (Grad Dip) in SEN completed the Teacher Attribution Scale (TAS), the Teacher Efficacy for Inclusive Practice (TEIP) Scale, and the Interaction with Disabled Persons Scale at the commencement of the programme (Time 1; N = 80) and upon its completion (Time 2; N = 35). SETs without a postgraduate qualification (Non-Grad Dip) also completed these questionnaires at Time 1 (N = 17) and Time 2 (N = 11). **Results:** Hierarchical regression analyses found that teacher role and teacher efficacy for inclusive practice predicted stability attributions for students with identified needs. Mixed factorial ANOVAs were conducted to further examine the effect of teachers' role. It was found that primary school SETs tended to report greater stability attributions in comparison to post-primary SETs and special school teachers. Using mixed factorial ANOVAs to compare Grad Dip and Non-Grad Dip teachers' attributions, efficacy for inclusive practice and attitudes at Time 1 and Time 2, it was found that aside from Grad Dip teachers having lower efficacy for inclusive instruction compared to Non-Grad Dip teacher, neither presentation of SEN, time, nor completion of a Grad Dip SEN or not, influenced teachers' efficacy for inclusive instruction, attitudes towards people with disabilities or attributions in any of the three domains. **Conclusions:** The findings highlight the importance of addressing teachers' roles and efficacy in inclusive education, particularly in managing stability attributions. They also highlight the need to explore the impact of postgraduate programmes in inclusive education on teachers' attitudes and beliefs.

Keywords: Teachers' attributions, graduate education, inclusive and special education, teacher efficacy for inclusive practice.

1. Introduction

Teachers play a vital role in fostering inclusive classrooms (Boyle et al., 2020) and their attitudes towards the inclusion of students with special educational needs (SEN) are considered essential to understanding effective inclusive education in schools (Boyle et al., 2020). Attribution theory, as a theoretical framework, may provide a means of linking teachers' beliefs and attributions to their classroom behaviour. For example, teachers can attribute student failure to internal factors (e.g., ability or effort) or external factors (e.g., task difficulty or luck), which can be stable or unstable and controllable or uncontrollable (Weiner, 2000).

Teachers' attributions for student failure can be influenced by varied factors such as the identified needs of students, teacher's role, training, attitudes towards people with disabilities and their self-efficacy for inclusive practice. Research has suggested that teachers can perceive students with Specific Learning Disabilities (SpLD) as having internal, stable difficulties unlikely to change over time, which can negatively affect their expectations of the students and the support they provide (Woodcock & Hitches, 2017). However, Brady and Woolfson (2008) found that teachers' locus of causality and stability attributions for students with learning difficulties did not differ or were more positive when compared to attributions

towards students without such needs. In terms of controllability, across studies, teachers generally perceive the cause of failure for students with learning difficulties as being less controllable when compared with their peers without such needs (Woodcock & Hitches, 2017). Teacher role may also influence attributions. Special school teachers tend to have more positive views of students' ability to change over time than mainstream and learning support teachers (Brady & Woolfson, 2008). Interestingly, learning support teachers, despite working closely with students with additional needs, tend to hold more negative attributions, similar to mainstream teachers (Woolfson et al., 2007). Research on the impact of postgraduate training on teachers' attitudes towards inclusion remains limited (Woolfson et al., 2007). However, one study suggested that postgraduate qualifications in special education do not consistently predict teachers' attributions regarding locus of causality, stability, or controllability (Woolfson & Brady, 2009). Attitudes toward people with disabilities in society have also been found to influence teachers' attributions. Teachers with low sympathy towards individuals with disabilities tend to attribute student failure to external factors, while those more comfortable with disabilities paradoxically perceive students as having less control over their learning progress (Brady & Woolfson, 2008). Teachers' efficacy beliefs may also influence their attributions. Teachers confident in supporting students with learning difficulties are more likely to attribute poor performance to external factors (e.g., curriculum or teaching quality), rather than internal factors (Woolfson & Brady, 2009). However, some studies did not find that efficacy beliefs predicted attributions towards students with learning difficulties, likely due to measurement inconsistencies (Brady & Woolfson, 2008).

The present study aims to investigate the following research questions (RQs): What teacher factors predict special education teachers' (SETs') attributions towards students with and without SEN? Is there a difference between SETs' (primary, post primary and special school) locus of causality, stability, and controllability attributions towards students with and without SEN? Is there a difference in SETs' efficacy for inclusive practice, attitudes, and attributions towards students with and without SEN following completion of a postgraduate qualification in SEN?

2. Methodology

For RQ1, predictive variables (teachers' role, length of SEN experience, GradDip status, teacher efficacy and attitudes toward people with disabilities) were used to predict performance on criterion variables (teachers' attributions towards students with and without identified SEN). For RQ2, the relationship between teacher roles (primary, post primary, and special school) and their attributions was examined. For RQ3, a longitudinal correlation study, using a pre and post comparison group panel design was employed to examine differences between teachers who were completing a postgraduate qualification in SEN (GradDip) and those who were not (Non-GradDip), at intervals spanning an academic year, namely, pre (Time 1) and post (Time 2) completion of a graduate diploma in SEN. Variables included teacher efficacy for inclusive practice, teachers' attitudes towards people with a disability and teachers' attributions towards students with SEN.

2.1. Participants

A total of 295 teachers enrolled in the Combined Post-Graduate Diploma for Teachers involved in Learning Support and Special Education (GradDip) programme were invited to participate. The programme, funded by the Department of Education and Skills (DES) in Ireland, supports special education teachers (SETs) in primary, post-primary, and special schools (DES, 2019). 81 questionnaire packs were returned (27.1% response rate). The Non-GradDip group (SETs who were not enrolled or who had not completed the GradDip) was selected through systematic sampling from a database of Irish schools, with 17 questionnaires returned (17% response rate). At Time 2, data were collected from 35 GradDip and 11 Non-GradDip teachers. Demographic details such as gender, school type, teaching experience, and SEN experience were recorded.

2.2. Measures

Teacher Attribution Scale (TAS) (Woolfson & Brady, 2008) - measured attributions regarding student difficulties, using vignettes based on Weiner's model, covering locus of causality, stability, and controllability. Adaptations were made to reflect the Irish education system. High levels of reliability were found for the subscales with alphas of .91, .80, and .90 for locus of causality, stability, and controllability, respectively.

Teacher Efficacy for Inclusive Practice (TEIP) Scale (Sharma et al., 2012) - assessed teacher self-efficacy in inclusive instruction, collaboration, and behaviour management. Alpha coefficients were 0.83, 0.79, and 0.85, respectively.

Interaction with Disabled Persons Scale (IDP) (Gething, 1991) - evaluated teachers' attitudes towards individuals with disabilities. Factor analysis supported a two-factor structure (Discomfort and Sympathy), consistent with previous studies (Tait & Purdie, 2000).

2.3. Procedure

Questionnaire packs were distributed to the seven Course Directors offering the GradDip. Teachers were asked to complete the questionnaires in the first two weeks following programme commencement. For the comparison group, questionnaire packs were posted to principals in 40 Primary, 40 Post Primary and 20 Special Schools. The study design required a commitment to a second data collection point. All Course Directors were contacted again towards the end of the academic year and five Directors agreed to disseminate the packs. Questionnaire packs were again posted to all respondents from the Non-GradDip group. Statistical analysis was conducted using SPSS 26.0, with exploratory factor analysis applied to the IDP scale to determine an appropriate factor structure. Ethical approval for the study was required and granted by the UCL Research Ethics Committee. In addition, ethical clearance was required and gained from two of the seven third level providers of the GradDip.

3. Results

3.1. Research question 1: Factors predicting teachers' attributions

A series of hierarchical linear regression analysis was conducted to investigate the factors predicting teachers' attributions towards students with and without SEN at Time 1 (N=97). Length of SEN teaching experience, GradDip status, and attitudes of discomfort and sympathy failed to predict SETs' locus of causality, stability and controllability attributions, both for students and without SEN. It was found that teacher's role and teacher efficacy for inclusive practice were significant predictors of stability attributions for students with SEN. Primary SETs were more likely to report higher stability attributions for students with SEN in comparison to special school teachers, meaning they are more likely to expect students' poor performance to persist over time. This model explained 7.5% of the variance ($F(2, 86) = 4.55, p = .013$). In the final model, controlling for SEN experience and GradDip status, teacher efficacy was a predictor of lower stability attributions and primary school role was a predictor of higher attributions in this domain. This model explained 12% of the variance in teachers' stability attributions ($F(7, 81) = 2.71, p = .014$).

For students without SEN, teacher role was a significant predictor of stability attributions ($F(2, 86) = 3.50, p = .035$), explaining 5.5% of the variance. . However, neither primary nor post-primary emerged as a significant predictor on their own.

3.2. Research question 2: Teachers' attributions and school role

A 3×2 mixed factorial ANOVA was conducted to examine the relationship between teacher role and teachers' attributions for students with and without SEN. For Locus of Causality and Controllability attributions, no significant effects were found for SEN status or teacher role. For Stability, a main effect for SEN was observed (Wilks Lambda = 0.90, $F(1, 94) = 10.44, p = .002$, partial $\eta^2 = .10$), with higher more negative stability attributions reported for students without SEN. A significant effect for role ($F(2, 94) = 5.16, p = .007$) showed that primary teachers reported higher stability attributions compared to post-primary teachers.

3.3. Research question 3: Teacher efficacy, attitudes, and attributions

A 2×2 mixed factorial ANOVA assessed differences between GradDip and Non-GradDip teachers in self-efficacy, attitudes, and attributions pre- and post-completion of the GradDip. For overall efficacy, there was a significant main effect for time (Wilks Lambda = 0.88, $F(1, 41) = 5.72, p = .021$, partial $\eta^2 = .122$) and group ($F(1, 41) = 5.35, p = .026$, partial $\eta^2 = .115$), indicating increased efficacy at Time 2. GradDip teachers reported lower efficacy overall compared to Non-GradDip teachers. However, findings were not significant after applying the Bonferroni adjustment. For efficacy in Inclusive Instruction, a main effect for time (Wilks Lambda = 0.90, $F(1, 42) = 4.50, p = .040$, partial $\eta^2 = .097$) and group ($F(1, 42) = 5.66, p = .002$, partial $\eta^2 = .21$) showed that GradDip teachers reported lower efficacy for inclusive instruction but this increased over time in comparison to the Non-GradDip teachers. No significant effects were observed for the other efficacy factors (Collaboration and Managing Behaviour) With regard to Interactions with People with Disabilities (IDP), no significant effects were observed for discomfort or sympathy after Bonferroni correction. Similarly, no significant effects for time, group, or interactions were found using the Teacher Attribution Scale.

4. Discussion

The study found that primary school special education teachers (SETs) were more likely to attribute poor student performance to stable factors for students with SEN. This suggests a negative attributional style, where primary SETs may expect these students' difficulties to persist over time. Attribution theory (Weiner, 2000) suggests that if teachers view student difficulties as stable, they may have lower expectations, which can negatively affect students' confidence and motivation. Primary SETs' negative stability attributions may stem from the structure of special education provision, where support is provided long-term (Griffin & Shevlin, 2011). This system may lead to reduced expectations, as teachers focus on maintaining support rather than implementing interventions (Rix et al., 2013). In contrast, post-primary SETs work within a system where students with SEN are more integrated into mainstream classrooms, allowing for greater application of differentiated instruction (O'Gorman & Drudy, 2011). Neither teaching experience nor completion of a postgraduate qualification in SEN (GradDip) predicted teachers' attributions regarding locus of causality or controllability. Other studies suggest that previous experience supporting students with SEN positively influences teachers' attitudes (Brady & Woolfson, 2008). Experience supporting students with SEN may be insufficient in influencing deep-seated attributional beliefs without high-quality training and reflective practice (Sokal & Sharma, 2017). Teacher efficacy for inclusive practice was a positive predictor of stability attributions. Teachers who felt confident in their ability to teach inclusively were more likely to see students' difficulties as changeable over time.

Unexpectedly, the study found that SETs viewed students without SEN as experiencing more stable difficulties than those students with SEN. This may reflect an implicit belief that students without access to special education support face greater long-term academic challenges. This aligns with the self-serving bias theory, which suggests that teachers may view students with SEN more positively due to their role in providing additional educational support (Woolfson et al., 2007). Primary SETs reported more negative stability attributions for all students, regardless of SEN status. Primary SETs are possibly more inclined to believe that student difficulties will persist over time, reinforcing the need for targeted interventions to shift these perspectives. In contrast, post-primary SETs and special school teachers demonstrated more flexible attributions, likely due to greater collaboration and exposure to inclusive teaching methods (Hansen et al., 2020).

Contrary to expectations, completing a postgraduate qualification in SEN (GradDip) did not lead to significant changes in teacher efficacy for inclusive practice, attitudes toward people with disabilities, or attributions towards students. GradDip teachers reported lower self-efficacy for inclusive instruction at the start of their programme, possibly due to self-awareness of gaps in their skills (O'Gorman & Drudy, 2011). However, their efficacy did not improve significantly over time, possibly due to limited opportunities to apply their learning (Tschannen-Moran & Hoy, 2007). Similarly, attitudes toward people with disabilities remained stable, suggesting that beliefs about disability are deeply ingrained and require more than coursework to change (Woolfson & Brady, 2009). The structure and content of professional development programmes may need to be revisited to ensure they challenge underlying beliefs and attributional biases (Avramidis & Kalyva, 2007).

4.1. Limitations

The use of hypothetical vignettes to measure teachers' attributions may not fully capture the complexities of real-life classroom practices. The reliance on self-report measures introduces potential biases, including social desirability bias. Unequal group sizes impacted the power of statistical analyses, potentially leading to Type II errors. Additionally, attrition in the longitudinal panel study limited the ability to fully track changes over time. The Bonferroni correction, applied to control for Type I familywise errors, may have increased the risk of Type II errors, leading to a cautious interpretation of findings.

4.2. Implications

This study enhances the understanding of special education teachers' (SETs) attributional beliefs and their impact on inclusive education. Findings emphasise the role of teacher efficacy in shaping stability attributions, suggesting that confidence in inclusive instruction fosters more positive expectations of student progress. This highlights the need for professional development programmes that combine theoretical learning with hands-on mastery experiences to build teacher confidence (Bandura, 1997). The results challenge assumptions about the influence of a postgraduate qualification in special education. The lack of significant differences in attributions between GradDip and Non-GradDip teachers suggests that formal training alone may not shift deep-seated attributional beliefs. Effective professional development should integrate experiential learning, mentoring, and collaboration to encourage meaningful conceptual change. Systemic factors, such as the long-term allocation of SEN support, may contribute to the more negative stability attributions observed among primary SETs. Future research could employ longitudinal designs to

track changes in SETs' attributions over time, particularly as they gain experience or complete postgraduate training. Investigating the effectiveness of professional development programmes tailored to attribution retraining could be beneficial. Additionally, combining qualitative and quantitative methods could provide a richer understanding of teachers' attributional beliefs and their impact.

5. Conclusion

This study provides valuable insights into the factors influencing special education teachers' (SETs) attributions towards students with and without special educational needs (SEN). Findings highlight that primary SETs are more likely to hold negative stability attributions, potentially reinforcing low expectations. Additionally, teacher efficacy positively predicted stability attributions, reinforcing the importance of inclusive education training. However, postgraduate qualifications in special education did not significantly alter attributions, suggesting a need for more reflective and experiential learning approaches.

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