

Professional Understanding of a Special Needs Educator: Roles, Expectations, and Implications

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ABSTRACT

The current social context presents understandings of professions as vaguer rather than distinct in the everchanging education environment. While education and the medium of education (Teachers) present as a vastly researched sphere, the parallel profession of a Special-needs Educator lacked equal attention despite the challenges that the profession faces in its more complex provisos. The project seeks to determine the professional understanding of a SnE and the varied implied association of professional identity using a qualitative approach, with adaptation from Collie and Mansfield's proposed model (2022) with an additional paradigm of Social Identity Theory. Semi-structured interviews were conducted with 10 participants at different levels of professional involvement before analysis was conducted using Thematic Analysis proposed by Clark, Braun and Hayfield (2015). Presenting themes of (1) Big Environment, (2) Professional Identity, (3) Expectations (Formal Professional roles), (4) Additional Roles (Hidden Professional Roles) and, (5) Burnout were observed from the data. Key finding notes that dissonance within the profession was resultant of the low clarity of professional responsibilities rather than factors identified by earlier studies (heavy workload, emotional burnout, lack of resources etc); 'Parents' and 'Organization' were noted to be direct contributors to the low clarity of role, and that; 'Ambiguous' was noted to represent the hidden curriculum of the profession rather than any distinct findings. The research notes the maturity of the profession in the developmental context of Singapore and provides recommendations for different profiles-levels to reflect the maturity of the professional environment.

1. Introduction

The understanding of professionalism is no simple feat and it is a far more complex construct than most would be aware of. Professionalism is a key concept originating from the sociologies of work, occupations, professions, and organizations, which are everchanging and evolving (Sandro, 2015). Luhmann's (1981) concept of social systems, which by its root logic is a theory of society, highlights society as a highly complex integration of many social systems (the

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political system, the economic system, the medical system, and so on). Social systems such as the economic or political processes are understood as a basic phenomenon from the production of sociocultural evolutions (*Smith*, 2005). Becker (1952) noted that the social system refers to the interaction of a plurality of actors which is oriented by rules represented by the complexes of complementary expectations concerning roles and sanctions (Becker, 1952). It is within the understanding of 'expectations concerning roles and sanctions' that the full implication of what underscores a profession is elucidated. It provides a glimpse of the function of professions within the constructs of society.

Within this 'expectation', at the core of how the current society functions, there is a legalized agreement on what each exchange entails, whether economic, political or social. Professionalism implies the importance of trust in economic relations in modern societies which often have an advanced division of labour (Sandro, 2015). As noted by Sundt (2005), the recognition of a profession is no small feat as it is an affirmation of the practice which brings about major considerations in education, research, technology, and many other complex social systems (Rutledge, 2012). Education, similar to other professions, is intricately linked to the society and the evolution that it goes through. As another branch of education, special education also functions within the same sphere but are often overlooked simply because they are an auxiliary to the main understanding of education. It however cannot be denied that they function in a very different environment. This research project investigates the professional role of a special needs educator from the positionality of a distinct profession. The paper starts with a selective contextualization of the profession of a Special Needs Educator (SnE) within the literatures of professions before the methodology and analysis is detailed. It culminates with an extended discussion on implications before suggestions for progress and future research.

2. Selective Contextualization (Literature Review)

2.1. Profession, Professionalism and Professionalization

The concept of a profession often comes into debate due to the complexity of the processes between Profession, Professionalization and Professionalism (Martimianakis, Maniate & Hodges, 2009). Many dimensions of political, economic and social dimensions must be considered within the nature and function of professionalism, resulting in ambiguity rather than clarity (Cogan, 1955; Larson, 1979; Kraemer, 2005; Martimianakis, Maniate & Hodges, 2009; Sandro, 2015). Where the concept of Profession represents a distinct and generic category of occupational work, Professionalization refers to the process to achieve the status of the profession and, Professionalism refers to embodying the occupational value and ideological interpretations (Sandro, 2015). The need to distinguish each concept separately lies in the need to objectively understand their core functions which are constantly evolving. While each domain serves different principles and implications this paper wishes to highlight the reflexive nature of each domain in current world development.

2.2. Profession

The definition of a profession has always been an area of debate within the social sciences. Traditional definitions centre around the concept of occupations and employment is no longer defensible in the current social context. In trying to define 'Profession', many sociologists instead used terms that traverse the boundary of professionalism due to the vagueness of definitions (Cogan, 1955; Martimianakis, Maniate & Hodges, 2009; Edwards, Harrison & Tait, 2013; Becker, 2017). Foucault used the term 'discipline' instead as a referral term to

profession, providing an overlay of the concept of legitimacy that presents as control of autonomous subjects (*Goldstein*, 1984; Sandro, 2015). Foucault saw the crucial element of the development of expertise within the understanding of discipline (Foucault, 1998). Saks (2012) gave a clear and concise account of the profession by tracing it within the taxonomic approach in which professions were seen as possessing unique and positive characteristics that include distinctive knowledge and expertise represented in a hierarchical form (Edwards, Harrison & Tait, 2013).

2.2.1. Established Body of Knowledge and Expertise

In Defining a Profession: The Role of Knowledge and Expertise, Saks (2012) highlighted the relation of distinct knowledge and expertise required in defining a profession (Saks, 2012). Throughout human development, social advancement's association with knowledge development and creation cannot be denied. New technological advancement and economic systems develop in tandem to create a world economy that is driven by knowledge (Bergesen, 1990; Castells, 1997; Archibugi et al., 1999). In the current knowledge-based economy, the need for a codified body of knowledge and an educational system that employs the body of knowledge is imperative. Codified knowledge plays an important role in disciplines and professions by (1) acknowledging and recognizing the time, effort, and scientific significance, (2) serving as the baseline upon which knowledge is built, as well as (3) serving as a means of reproduction (Kraemer, 2005; Sandro, 2015). Larson (1979) noted how such a body of knowledge is used to develop and standardize knowledge and technologies in the field of education. He gave credit to universities, at the top of the educational hierarchy, as an institutional basis of knowledge which became the most powerful legitimation for claims to cognitive and technical superiority (Larson, 1979). In the current context, codifying and contributing to knowledge creates two predictable, and thus dependable circumstances that are important to society: (1) baseline expectations and (2) reproduction (Kraemer, 2005; Larson, 1979; Sandro, 2015). The Foucauldian concept of discipline and legitimacy is an expectation of expertise within a specific field (Goldstein, 1984; Sandro, 2015). In The Division of Labor, Durkheim (1933) highlighted the legal and moral anomie of economic life that functions based on expectations for whichever sphere of activity that the division is based upon (Durkheim, 2013).

2.2.2. Professional Body Recognition

There comes a point in legitimacy, where there is a need to establish a recognized professional body in a consolidated effort to exercise the governance required. From the Weberian perspective, the concept of profession centres around inclusion and exclusion which carries with it its merit and criticism (Cogan, 1955; Martimianakis, Maniate & Hodges, 2009; Foucault, 1998; Saks, 2012). The simple act of creating a professional body carries with it highly complex implications given the complex social system that the society is built upon (Bergesen, 1990; Smith, 2005; Rutledge, 2012). On legalizing a discipline, Sundt (2011) highlighted that with recognition, a baseline of acceptable practice is established. A profession embodies the basic 'expectation' of acceptable knowledge and practice that is categorized within that discipline. In the modern day, *Sundt* highlighted that legalizing a profession comes with it complex problems in resource inputs in education, research, governance and the business models that dominate current day society (Rutledge, 2012). Such a system of approach, however, has its own merits at the system or occupational level simply because of the appeal of prestige and monetary implications (Foucault, 1998; Bunderson, 2001; Martimianakis, Maniate & Hodges, 2009; Durkheim, 2013). An interpretation of the Foucauldian concept of legitimacy highlights the control of supposing autonomous subjects to exercise appropriate conduct (Goldstein, 1984; Sandro. M, 2015). The notion of what constitutes 'appropriate conduct' yet again, entails other complex social systems underpinned by history, culture, and political anthropology.

2.3. Professionalism

Literature on professionalism can be organized into two distinct themes (1) formalized and (2) informalized (Hafferty & Hafler, 2011; Mckenna, 2020). Whereas the literature on the formal understanding of professionalism highlights the legal obligations of practice, the second category of literature on professionalism covers the interpersonal aspects of development. Sometimes also referred to as ideologies, there are distinct differences in the perceived professional ideologies and administrative/occupational ideologies and to what extent professionals are measured (Bunderson, 2001; Evans, 2011; Sandro, 2015). Evans (2011) revealed how the education profession in England focuses more on teachers' behaviour rather than on their attitudes and intellectuality, bringing with it a lopsided concept of the profession. She continued by noting the difference between 'enacted' professionalism and 'demanded' professionalism shaped by complex processes that are at many times socially constructed (Evans, 2011). Much of the notion of professionalism embodies both the occupational requirements as well as the ideological interpretations that seemingly have a 'moral code' modelled after the normalization process (Cogan, 1955; Sandro, 2015).

2.3.1. The Hidden Role

Professionalism in the modern-day context is value-laden with societal, institutional, historical, and contextual expectations built into it (Martimianakis, Maniate & Hodges, 2009). Much research demonstrated the complexity of understanding professionalism by findings hidden expectations within different arrays of professional bodies. Mohammad et al (2018) found that factors affecting human resource management specific to the oil industry can be divided into three general categories of environmental, organizational and individual, which spreads across nine dimensions: governing body, ethical code, independence, certification, legal status, contribution to Society, the body of knowledge, research base and identification (as cited in Amin et al., 2018). Demirkasımoğlu (2010) noted that the multiple interpretations of teacher professionalism in sociological, political, and educational contexts craft the professional identity of a teacher as a semi-professional due to certain standards that limit the autonomy and decision-making of a teacher within and out of consistent requirements (Demirkasımoğlu, 2010). These limitations include the constantly changing work demands, public image requirements and the meaning and status of teaching. With the complex needs attributed to specific professions, professionalism became deeply involved in the process of normalization which captures both positive and negative developments (Martimianakis, Maniate & Hodges, 2009; May et al., 2009; Sandro, 2015). May et al (2009) defined normalization as the process of becoming routinely embedded in the matrices of existing practices that are socially patterned (May et al., 2009). Badia and Iglesias (2011) for example, found that regardless of which approach is adopted by science teachers to teach science in high schools in the state of Utah, educational technology weighs heavily on being a science teacher. All these abstract requirements eventually go to form the hidden role of a profession (Hafferty & Hafler, 2011; Hafferty, Gaufberg & O'Donnell, 2015; Mulder et al., 2018; Mckenna, 2020).

2.4. Professionalization

Evans (2010, 2011) and Creasy (2015) stated the importance of teaching professionalism as part of the professional requirement of teachers due to the distinct conceptions of demanded, prescribed, and enacted professionalism and, how they often contradict each other in different contexts. There are increasing demands of recognition of the necessity to account for the

unstated but vital curriculum, which may or may not be openly acknowledged, that are operational in real-life professional settings (*Hafferty & Hafler*, 2011; *Mulder et al.*, 2018; *Mckenna*, 2020). Increasing literature on hidden curriculum created new meaning and understanding of professionalism that goes on to inform the process of professionalization. They note the importance of clarifying and formalizing these otherwise hidden expectations and seeks to abolish these notions of hidden curriculums within the professionalization process (*Edwards, Harrison & Tait, 2013; Hafferty, Gaufberg & O'Donnell, 2015; Mulder et al., 2018; Mckenna, 2020*).

2.4.1. Standards of Practice

Normalization, as a form of acceptance of the authority and measurement of standards, became the process which contributes to informing the standards of practice within the aspects of professionalization (*Martimianakis*, *Maniate & Hodges*, 2009; *May et al.*, 2009; *Sandro*, 2015). Martimianakis, Maniate and Hodges (2009) emphasised that pro-social behaviour became an appropriate foundation for professionalism based on the shift of definitions from individual-based to society-based traits. They continued by stressing how professional identity is constructed through the roles played by professionals that are assumed to act in the public interest, and that unprofessional behaviour by any one individual reflects badly on the entire profession (*Martimianakis*, *Maniate & Hodges*, 2009). While traditional standards of practice are determined by specific expertise, new measurements of standards also include behaviours, personal traits, ethics and affective behaviours (*Lynch*, *Surdyk & Eiser*, 2004; *Martimianakis*, *Maniate & Hodges* 2009; *May et al.*, 2009; *Edwards*, *Harrison & Tait*, 2013; *Amin et al.*, 2018). Their findings concur with many other studies on professional training (*Martimianakis*, *Maniate & Hodges*, 2009; *Hafferty*, *Gaufberg & O'Donnell*, 2015; *Mulder et al.*, 2018; *Mckenna*, 2020).

2.4.2. A Statutory Board of Governance

As with any measurement with a baseline, there is a need for exclusion and inclusion practices and a hierarchy structure in any system for it to serve its operational function. Weberian sees the measurement as a social practice of exclusivity while Foucauldian sees it as an establishment of authority within a specific discipline (Goldstein, 1984; Kraemer, 2005; Durkheim, 2013; Becker, 2017). The creation of a body of governance has many implications. Of the many, some of the most prominent are perhaps the actual acceptance that it 'is' a practice (Rutledge, 2012) and the power or autonomy that is conferred on/to the governing body (Cogan, 1955; Durkheim, 2013; Sandro, 2015). Doing so would mean the investment of resources in the forms of education, technology, and economics to name a few (Cogan, 1955; Smith, 2005; Rutledge, 2012). While the initial setup may be technically specific base on the content of the profession, the development of the governing body would also need to address the more abstract concepts revolving around assessment, ethics, mechanisms for validating work etc (Cogan, 1955; Kraemer 2005; Saks, 2012; Becker, 2017). The purpose of these governing bodies, while initially created to govern disciplines on 'technical accuracy' when the development of the society was at its infancy stage (Martimianakis, Maniate & Hodges, 2009; Durkheim, 2013; Becker, 2017), became more complex when the demand of the society shifted towards 'quality of expectations' to reflect the maturity of the discipline which has embedded societal notions (Bunderson, 2001; Sandro, 2015; Wood, McAteer & Whitehead, 2018).

2.5. An Exemplar - Special-needs Educator (SnE)

Contextually, the profession of SnE differs slightly across different countries, subjected to the educational system set up. Currently, most education systems in the world support two general types of schooling institutions: mainstream schools and special schools. Mainstream schools operate with the standardised national curriculum that caters to the general population while special schools serve the population with a variety of different needs (physical, developmental, mental) with either a specialized or hybrid curriculum (*OECD*, 2021). The occupational distinction between the profession of a Teacher (T), a SnE and a Support Teacher (ST) are, however, extremely vague.

2.5.1. Difference between a Teacher, a SnE and an ST

Table 1 is the defined professional roles and responsibilities curated from multiple governments and recruitment agencies on the roles and responsibilities of a Teacher, SnE and ST (Eduk, 2016; CB Associate Training, 2021; MyCareersFuture. Singapore, 2022; MOE.GOV, n.d.; nationalcareers.service.gov.uk, n.d.; targetjobs.co.uk, n.d.; www.skillsforschools.org.uk, n.d.; nationalcareers.service.gov.uk, n.d.; Tes, n.d.).

Table 1. Roles and Responsibilities compiled from multiple online sources

 Deliver lessons effectively Plan engaging and relevant lessons Give regular feedback to learners (In forms of assessments) Identify learners needs Support learners with their studies Keep up to date with subject knowledge Plan and prepare all lessons and resources Adhere to legislation relating to Health and Safety, Equality and Diversity and Safeguarding (Duty of Care) Research and implementing new teaching methods Help pupils develop self-confidence, independence and skills for life Deliver lessons effectively Plan engaging and relevant lessons materials and equipment Get the classroom ready for lessons and clear awar afterwards Work with groups and individual pupils to make sure they understand the work and stay focussed Support learners with their studies by engaging with small groups or individuals Keep up to date with subject knowledge Plan and prepare all lessons and resources Adhere to legislation relating to Health and Safety, Equality and Diversity and Safeguarding (Duty of Care) Research and implementing new teaching methods Help pupils develop self-confidence, independence and skills for life Manage pupils' behaviour, motivate and encourage
 Plan engaging and relevant lessons Give regular feedback to learners (In forms of assessments) Identify learners needs Support learners with their studies Keep up to date with subject knowledge Plan and prepare all lessons and resources Adhere to legislation relating to Health and Safety, Equality and Diversity and Safety, Equality and Diversity and Safety, Equality and methods Help pupils develop self-confidence, independence and skills for life Plan engaging and relevant lessons Get the classroom ready for lessons and clear awa afterwards Work with groups and individual pupils to make sure they understand the work and stay focussed Support learners with their studies by engaging with small groups or individuals Keep up to date with subject knowledge Plan and prepare all lessons and resources Adhere to legislation relating to Health and Safety, Equality and Diversity and Safeguarding (Duty of Care) Research and implementing new teaching methods Help pupils develop self-confidence, independence and skills for life Manage pupils' behaviour, motivate and encourage
them to learn Work with specialist teaching services, medical staff, therapists and psychologists Developing programmes of learning activities Making use of special facilities and/or equipment Making use of special facilities and/or equipment special needs of the special needs
Work with specialist teaching services, medical staff, therapists and psychologists Developing programmes of learning activities Making use of special facilities and/or equipment

While there is some variation in how they are determined and interpreted differs according to how the education system was set up, most understandings are in accord with these dimensions.

In general classroom settings, a teacher may operate with ST, and in the setting of a special school environment, a SnE may operate with at least one ST (*Hallett, 2014*) From the listed roles and responsibilities, there are observable overlapping tasks with each distinct job role. The largest marked difference lies in the working environment; a trained SnE predominantly works in a special school or some cases in a mainstream school.

2.5.2. Context of Professional Distinction

The increasing complexity of the working environment sees mixed hiring outcomes across different educational set-ups. Few research from a pragmatic perspective account for a conclusive understanding of the job tasks of special-needs teachers/educators in *The UK* or Singapore context. From the few that could be found, trends presented mixed findings. Fisher et al (2021) found that more paraprofessionals are being hired to replace SnE, specifically in the context of students with autism spectrum disorders. It was also found while paraprofessionals lack training in curricular and instructional decisions, estimates of the proportion of paraprofessionals that makes curricular decisions ranged up to 70% (Fisher et al., 2021). Sindelar, Brownell and Billingsley (2010) found that almost half of the first-year teachers that enter special needs schools do not meet the basic requirements for teaching. Entry into special education also is often through internship programs with special schools which practising teachers undertake as a condition of employment (Sindelar, Brownell & Billingsley, 2010). Little and Bartlett (2010) highlighted that most fields vary in the extent to which professional preparation actually maps fully onto the professional work itself, particularly in the context of education. Specifically, the insufficient supply of appropriately qualified teachers in high-demand sectors such as special education led to a high proportion of underqualified and inexperienced teachers employed by schools, and the likelihood of out-offield teaching (Little & Bartlett, 2010).

Findings by Sindelar, Brownell and Billingsley (2010) understood that it is a positive sign that educators can transition into the special needs field. While the circumstantial acceptance of emergency roles allows for the fulfilment of the insufficient supply of teachers (Sindelar, Brownell & Billingsley, 2010; Little & Bartlett, 2010; Fisher et al., 2021; Brittle, 2020), it also indirectly challenges the notion of a profession. Prior studies on professions notes how jurisdictional conflicts present in itself, a challenge to the notion of profession and professionalization due to the dispute it presents in terms of altering established processes and hierarchical expertise (Abbott, 1986, 1991). This diffusion of roles and responsibilities was called out by Giangreco (2003, 2004), noting the overreliance and impropriety of assigning paraprofessionals to run classes in which they have no training. Traditionally, SnE professionalization occurs through formal training in educational institutes akin to teachers in mainstream education with some add-ons. Due to the spectrum of needs of each type of special needs that are often congregated into a single school, SnEs are often not trained adequately to effectively provide for the large range of different learning needs (Giangreco, Broer & Suter, 2009; Giangreco, 2010; Fisher et al., 2021). Due to the large diversity of students, where which there are often high rates of comorbidity with other health and mental issues which requires other additional access arrangements, the matter of student management in a special needs class is often oversimplified by people without relevant experiences (Florian. Chapter 21 & 22, 2014).

With the bulk of their responsibility in the classroom consisting of delivering the curriculum, an often oversight of this requirement, however, is to account for the diversity of the student's needs due to their different learning needs (Sindelar, Brownell & Billingsley, 2010; Florian. Chapter 14, 21, 22, 2014; Fisher et al., 2021). Swann (1992, as cited by Booth et al.) highlighted the drawback of the national curriculum to disregarding the diversity of learners.

Specifically, the assignment of levels of attainment being bounded to certain age groups introduces another layer of difficulty for students already with learning difficulties (Booth et al., 2013). Berlach and Chambers (2010) found that students with autism generally perform at low levels overall on the national curriculum when they investigated if inclusive schools provide better educational outcomes compared to special schools in Australia (Berlach & Chambers, 2010). The implication suggests that SnE needs to adapt and modify the curriculum and materials provided to increase its effectiveness (Berlach & Chambers, 2010; Sindelar, Brownell & Billingsley, 2010; Little & Bartlett, 2010; Florian. Chapter 14, 2014; Waddington & Reed, 2017). The task demands high subject mastery in both delivery and curriculum design to ensure learning needs are met (Sindelar, Brownell & Billingslev, 2010; Little & Bartlett, 2010; Fisher et al., 2021; Theobald et al., 2021). In studies conducted by Vannest and Burke (2009) they found that educators in a special classroom must address the same content covered in a standard classroom through different strategic and more explicit forms of teaching. In measuring the time spent by a special-needs educator, Vannest and Burke revealed findings of the following: academic instruction (15.6%), instructional support (14.6%), paperwork (12.1%), personal time (9.4%), consulting and collaboration (8.6%), other responsibilities (7.9%), supervision (7.2%), discipline (7.0%), planning (5.4%), non-academic instruction (4.4%), assessment (4.4%), and IEP (2.9%). While the combined timing of instructional activities would measure at 40%, it was notably much less than the reported 77% of time spent on the same activities for a general teacher in a study by Metzker (2003, as cited by Vannest & Hagan-Burke, 2009). The varied activities involved with the role of a SnE, job tasks outside of instructional activities accounted for up to 23.7% of their time (consulting and collaboration (8.6%), other responsibilities (7.9%) and supervision (7.2%) (Vannest & Hagan-Burke, 2009).

2.5.3. Expected Versus Hidden Roles

The myriad of tasks that SnE accounted for includes playing roles that they were either not trained for or have limited expertise for (Gersten et al., 2001; Weiss & Lloyd, 2002; Fore, Martin & Bender, 2002; Vannest & Hagan-Burke, 2009; Hillel, 2014; Fisher et al., 2021; Theobald et al., 2021). Such roles include health advocates, psychologists, event coordinators and so on which are not openly acknowledged (Evans 2011; Hafferty and Hafler 2011; Creasy 2015). Hillel (2014) conducted narrative research with nine experienced special needs educators and found that their job task involves multiple roles and tasks because teachers have to tackle diverse problems. This concurs with findings by Vannest and Burke, and Gersten et al (Gersten et al. 2001; Vannest & Hagan-Burke 2009). Little and Bartlett (2010) noted in their study that the degree of professional preparation meeting realistic working demands contrasts greatly for the field of education, particularly for the special needs sphere. This finding concurs with the findings of many others (Sindelar, Brownell & Billingsley, 2010; Fisher et al., 2021; Little & Bartlett, 2010; Theobald et al., 2021). In a study conducted by Gersten et al (2001) involving 887 special educators in three large urban school districts, they found that a leading factor that led to educator burnout was stresses due to job design. It was highlighted how the job design involved high restrictions and included task requirements that were not part of their job expectations. Research also concurred with the general finding that dissonances between expected job responsibilities and the actual requirement of the job contributed to stress (Fore, Martin & Bender, 2002; Weiss & Lloyd, 2002; Hillel, 2014).

2.6. Present Understandings

Current literature on the profession of Teachers is well-defined in the areas of expectations, work climates and stressors (*Collie & Mansfield, 2022; Carroll et al., 2020; Kyungsil, 2022*). Collie and Mansfield (2022) proposed a multilevel person-centred model that analyses the

commonly experienced sources of stress among teachers in the aspects of workload stress, student behaviour stress, and expectation stress (see *Figure 1*).

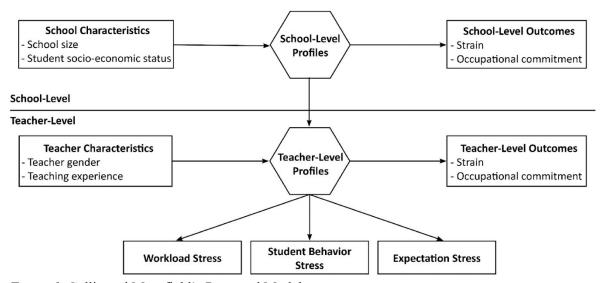


Figure 1. Collie and Mansfield's Proposed Model

Image from: https://www.sciencedirect.com/science/article/pii/S0742051X22001330

In their study, expectation stress has been noted to be associated with great strain and anxiety, and lower job satisfaction and self-efficacy among teachers. Their classification of expected stress refers to teachers' perceptions of the evolving requirements from authorities, students' achievement, and parents' expectations (*Collie & Mansfield*, 2022). This concurs with the prior understandings by *Carroll et al* (2020) where stresses are thematically understood in the range of systemic, organisational, relational, and intrapersonal stressors. Findings from their research reveal that 49% of teachers identified organisational stressors to be a key contributor to their stress (*Carroll et al.*, 2020).

Stressors for educators in the field of special needs are gaining increasing attention due to the high attrition rate (Haydon, Stevens & Leko, 2018; Cancio et al., 2018; Hester, Bridges & Rollins, 2020; Brittle, 2020). Many findings reveal similar conclusions between SnE and general education teachers although the differences in how factors were rated are distinctively different. Consensus indicates higher reported stressors in terms of received administrative support in training (Little & Bartlett, 2010; Cancio et al., 2018; Brittle, 2020; Theobald et al., 2021), resources (Cancio et al., 2018; Haydon, Stevens & Leko, 2018; Hester, Bridges & Rollins, 2020; Brittle, 2020), emotional demands (Haydon, Stevens and Leko 2018; Brittle 2020), and role ambiguity (Cancio et al., 2018; Haydon, Stevens & Leko, 2018; Brittle, 2020). Much past research was conducted on understanding the stresses of a SnE (Gersten et al., 2001; Fore, Martin & Bender, 2002; Hillel, 2014; Cancio et al., 2018; Hester, Bridges & Rollins, 2020; Brittle, 2020) but few approach research from an identity perspective. A search of prior literature presents two studies in Buysse and Wesley (1993) and Lewis and Crisp (2004). Buysse and Wesley researched how traditional conceptualizing of roles and responsibilities of a SnE are at the direct service component of a SnE's job that is increasingly diffused due to expanding roles in the changing social landscape (Buysse & Wesley, 1993), consistent with later research on the diffusion of job roles leading to stress (Gersten et al., 2001; Fore, Martin & Bender, 2002; Vannest & Hagan-Burke, 2009; Hester, Bridges & Rollins, 2020; Cancio et al., 2018). They called for the clarification of the roles of SnE in the education industry. Lewis and Crisp demonstrated the applicability of SIT concepts to the profession of SnE through their identification of distinct out-group, group structure and in-group adherence.

2.7. Summary of Gaps

Much research has gone into understanding coping mechanisms regarding stress in the complex work environment of special education but there have been few attempts to clarify the circumstantial components represented by the working environment from a bottom-up and systemic perspective. SnE, as a parallel profession of teacher, faces different social and cultural developmental roots and thus different implications at different profile levels. While all professions evolve following social and market demands, the profession of SnE faces an insufficiently understood and defined environment. More research on professional environment is needed to protect the profession and the professionals involved in them (Gersten et al., 2001; Vannest & Hagan-Burke, 2009; Sindelar, Brownell & Billingsley, 2010; Fisher et al., 2021; Little & Bartlett, 2010; Theobald et al., 2021).

2.8. Research Objective

The current research seeks to determine the professional understanding of a SnE and the varied implied association of professional identity, and their effect at profession (occupational) and organizational levels. Three research questions that function as premises in supporting the research objective are as follows:

Research question 1 (RQ1) - What are the formal and informal professional expectations of a SnE and how strictly are they adhered to?

Literature on professions highlights formal and informal expectations that act upon individuals seeking to enter or function within the profession. Much research on the Teacher profession highlights the complexity of the job task and responsibilities which similarly reflects in the SnE profession (*Lewis & Crisp, 2004; Demirkasımoğlu, 2010; Creasy, 2015; Cancio et al., 2018*). A different paradigm of a SnE profession from the Teacher profession is the overlap of roles due to the clients (students and parents) they work with (*Evans, 2008; Vannest & Hagan-Burke, 2009; Sindelar, Brownell & Billingsley, 2010; Cancio et al., 2018; Theobald et al., 2021; OECD, 2021*). Where job tasks and responsibilities are determined by governing bodies in the form of professional expectations, the vagueness of how boundaries are drawn in the professional environment is often not restricted to professional distinctions (*Vannest & Hagan-Burke, 2009; Giangreco, Broer & Suter, 2009; Sindelar, Brownell & Billingsley, 2010; Hallett, 2014; Theobald et al., 2021; Fisher et al., 2021*). Such formal and informal expectations shifts and shapes professional understanding over time, specifically in the ever-evolving educational sector. Addressing this research question will provide insight into how aligned or dissonant the industry is with professional bodies.

Research question 2 (RQ2) – What are social and cultural factors that contribute to professional expectations?

Expectations, when understood to be socially constructed, are formed through the complex factors that cross economic, environmental and social aspects (Smith, 2005; Pohlhaus, 2002; Martimianakis, Maniate & Hodges, 2009; Sandro, 2015). Literature associates stress factors with the development of professional identity in forms that seek to meet expectations as a measurement of their congruence to perceived identity (Gersten et al., 2001; Lewis & Crisp, 2004; Evans, 2008; Florian. Chapter 14, 2014; Cancio et al., 2018; Fisher et al., 2021). Identity formation in relation to in-group and out-group understandings helps differentiate identity distinctions and understandings of social structures within groups (Buysse & Wesley, 1993; Lewis & Crisp, 2004). Addressing this research question will provide insight into better clarifying the hidden roles of the profession and the normalization practices which can go forth

to better inform the hidden curriculum that should be addressed in the professionalization process at different levels of professional function.

Research question 3(RQ3) — What are the professional identification factors and their supportive/impeding factors?

When professional identity is considered, the formation orients around how the profession functions and the general work culture of the profession. While some differ subjectively to specific companies or organizations, normalizing processes eventually shape the understanding of the profession (*May et al.*, 2009). In any paradigm of identity, there are identifiable factors in the form of push and pull factors. Identity formation has been noted for a stronger association with longevity in professions, specifically for the helping and third-sector professions (*Gersten et al.*, 2001, Cancio et al., 2018, Carroll et al., 2020; Hester, Bridges & Rollins, 2020). Addressing this research question in identifying the supportive/impeding factors will provide insight into identities association are navigated at personal and interpersonal levels.

3. Methodology

3.1. Epistemology and Ontology

Where epistemology sets out as the study of knowledge, ontology refers to the study of being where the concern is about knowledge that exist in reality (*Moon & Blackman, 2017; Bhaskar, 2020*). Within ontology, two important aspects of (1) objectivism and (2) subjectivism present important theoretical implications; (1) objectivism is the ontological position that asserts that social phenomena and their meanings are independent of social actors, also known as the 'one truth', and (2) subjectivism perceives that social phenomena are created from perceptions and consequent actions of those social actors concerned with their existence, thus may be 'relative' to the experience (*Dudovskiy, 2010; Moon & Blackman, 2017*). The importance of establishing ontology is to better generate a relational understanding of perspectives when encountering a phenomenon. Particularly in the social sciences where contextual understanding may present a few different 'truths' (*Moon & Blackman, 2017; Amini, 2020*). The conflux of objectivism and subjectivism creates a more holistic understanding of the phenomenon in the real world.

Much research notes how educational and training institutes do not necessarily provide training that maps out into actual professional activities, particularly in the special education field (Little & Bartlett, 2010; Hafferty, Gaufberg & O'Donnell, 2015; Cancio et al., 2018; Hester, Bridges & Rollins, 2020; Brittle, 2020; Fisher et al., 2021). This is a key weakness from the context of professionalism, that the process of professionalization does not accurately map out onto professional practice. Another contextual weakness noted from past research was the complex environment that SnE functions in. Research on the profession of teachers already notes the complexity of the role which enmesh professional, social and cultural paradigms (OECD, 2005). Established objective knowledge of the profession of a SnE depicts a complex and highstress work environment similar to a teacher (Evans, 2008, 2011; Demirkasımoğlu, 2010; Creasy, 2015; Badia & Iglesias, 2019) but with additional demands that led to high burnout rates (Giangreco, Broer & Suter, 2009; Sindelar, Brownell & Billingsley, 2010; Fisher et al., 2021; Theobald et al., 2021). However, much of the understanding was drawn from the assumed principle that SnE functions in a similar environment to the parallel profession of a teacher which is hardly the case (OECD, 2005; Giangreco, Broer & Suter 2009; Giangreco, 2010).

3.2. Approach of Research

The approach of the current study takes adaptation from *Collie and Mansfield's* model (2022) with the addition of another paradigm of SIT. Understandings of professionalism note the process of normalization (*May et al., 2009*) which aligns well with the concepts of SIT (*Buysse & Wesley, 1993, Lewis & Crisp, 2004*) where both capture influences in the dimensions of the economy, political and social (*Becker, 1952, Rutledge, 2012, Sandro, 2015*). When concepts of stress are made distinct from teacher profiles with the underpinnings of SIT, a different perspective towards understanding professions can be formed. When stresses are understood to be subjectively formed through multilevel cultural origins (Constructivist view), concepts of SIT (In-group, Out-group and Structure) craft a more systemic structure to understand how stresses are culturally created in the SnE profession.

In-group	Structure	Out-group
	Workload Stress	
	Student behaviour Stress	
	Expectation Stress	

Figure 2. Proposed adaptation of SIT into Collie and Mansfield's Proposed Model

The application of SIT to *Collie and Mansfield's* proposed model (2022) is largely due to assumptions that teacher and school-level profile applies as a universal structural context that is already pre-determined by professional operational understandings (*Larson*, 1979; *Martimianakis*, *Maniate & Hodges*, 2009; Saks, 2012). However, it is the opinion of the researcher that, rather than mono-direction, a bi-directional relationship exists between levels; that profiles can change or adapt when certain maturity thresholds are met (*Rout & Kumar Behera*, 2014). The recent development sees the involvement of practitioners or consumers in the ever-evolving socio-scape, bi-directional processes are increasingly gaining attention in the realism it presents (*Zilber*, 2016; *Emmanouel*, *G et al.*, 2019), consistent with the traditional understanding (*Durkheim*) that an advanced level of labour will enable a reflective understanding, forming more advance and informed practices.

3.3. Research Method and Design

The research method chosen to best reflect the epistemological and ontological approach is a qualitative approach of semi-structured interviews with practising professionals. A semi-structured interview was selected for this research as the best-fit method from a bottom-up perspective of practitioners within the industry. The interview questions are derivations from a combination of the researchers' experience in the sector as well as references from past research on the stress of SnE (*Gersten et al., 2001; Fore, Martin & Bender, 2002; Vannest & Hagan-Burke, 2009; Sindelar, Brownell & Billingsley, 2010; Cancio et al., 2018; Hester, Bridges & Rollins, 2020; Theobald et al., 2021*). A total of 11 interview questions serves as the core guiding questions (not limited to/excluding prompting questions). Questions address specific research questions (RQ1, RQ2, RQ3) from practitioners' paradigms and seek to understand the influences affecting their understanding of the profession (*see Appendix A).

3.4. Participants

Research participants were recruited using convenience and snowballing sampling from professional networks based on criteria of (1) functioning professionally as a SnE, (2) being full-time employment within an organization or school, (3) operates in a classroom setting and, (4) meeting certain chronological milestones base on the number of years of experience. 10 participants were gathered with the following demography:

Table 2.

Participants Demographics

No. Participant	Years of experience	Schools/Organizations	Highest Educational level	Status of Training
G1M01	2	Special School	Degree	Untrained
G1F02	2	Organization	Diploma	Untrained
G1F03	2	Organization	Degree	Untrained
G2M01	4	Special School	Degree	Untrained
G2F02	5	Special School	Degree	Untrained
G2F03	5	Organization	Diploma	Trained
G3M01	9	Special School	Master's degree	Trained
G3F02	9	Special School	Master's degree	Trained
G3F03	12	General School	Diploma	Trained
G3F04	15	Special School	Master's degree	Trained

3.5. Analysis

Thematic Analysis is an increasingly popular method of qualitative data analysis due to its accessibility and flexibility in engaging qualitative research data critically (*Smith*, 2015; *Clarke & Braun*, 2016). While used widely, the approach taken specifically by *Clark*, *Braun and Hayfield* highlights a Big Q approach where the researcher is also understood as a participant that actively engages the data (*Smith*, 2015). From a critical realist perspective (consistent with the researcher's acuity), the idea is that reality is constructed of socio-cultural interpretations that represent the subject's version of their reality which are contextually tied rather than universal. Concepts of SIT were consciously taken into consideration to relate to *Collie and Mansfield's* model (2022) for a structural consideration. In the process of the analysis, grouping and regrouping were performed frequently, and reflexively to ensure the optimal exploration of presenting themes within the data. Participants were organized into three different groups of *G1*: 0 to 2 years, *G2*: 3 to 5 years and *G3* more than 5 years, based on critical retainment milestones identified by prior studies of *Gersten et al* (2001), *Cecil et al* (2002), *Cancio et al* (2018), *Hester et al* (2020), and *Theobald et al* (2021).

Nvivo20 software was used to analyse the data gathered. The software helps to organize, analyse and find insights in unstructured or qualitative data such as interviews and open-ended survey responses where deep levels of analysis are required. Operating functions of 'Word Query' and 'Cluster Analysis' in Nvivo 20 were used to support the analysis of data patterns to organize, triangulate and review themes. While *Pearson Correlation* generates a "best fit" line between attributes, *Jaccard Coefficient* accounts for matching attributes (*Similarity Metrics, n.d.*). Pearson correlation notes significance for the following values: negligible (<-/+0.3), low ($-/+0.3 \le -/+0.5$), moderate ($-/+0.5 \le -/+0.7$), high ($-/+0.7 \le -/+0.9$) and very high ($-/+0.9 \le -/+1$).

4. Key Findings and Discussions

All names of organizations, qualifications, training, and courses were omitted from records and replaced with *** to ensure confidentiality due to the combination of identifiers which may result in the participant being identified.

4.1. Presenting Themes

4.1.1. Big Environment

Sub-themes that are organized within the core themes are Culture, Collaborators and Clarifications. From the data, interactions with other actors in the special needs industry are also noted to be very high within a schooling setting. The distinction of collaborators can be separated into professionals ('speech/occupational therapists' and 'social workers') and social (predominantly parents or in some cases senior siblings). Parents were listed as a supportive factor within the theme of Big Environment but were also noted for relatedness to other core themes such as Expectations (Formal Professional roles) and Additional Roles (Hidden *Professional Roles*). Early practitioners relate to teaching as the main task and responsibilities they hold. Word frequency analysis on responses to interview questions on roles and responsibilities indicate high counts and percentages of words associated with the teaching themed are eventually into the sub-theme of Culture *profession**Responsibility - Teaching* (*Figure 3*).

Word	Lengt	Cou	Weighted Percentage (%)	Similar Words
learning	8	11	4.80	educate, knowing, learning, teach, teaching
educate	7	9	4.32	academic, educate, knowing, learning, teaching
communication	13	8	4.95	communication, curriculum, educate, marking, teach
objectives	10	4	3.30	covering, objectives, range, track
terms	5	4	3.77	terms

Figure 3. Word Frequency Query

Big environment\Clarifying with others what is an SOE		1		1	1	1		2	3	2		1	6
Big environment\Parental support				0	1	2		3			1	1	2
Expectations\Culture in the profession		1	1	2		1		1	1	1	1	2	5
Expectations\Culture in the profession\Community of practice - No awareness		1	1	2	1	1		2		1			1
Expectations\Culture in the profession\Community of Practice - Presence	1	1		2			1	1	2		3	1	6
Expectations\Culture in the profession\Responsibility - Teaching	3	1	2	6		1	1	2	1		1	1	3

Figure 4. Coded Items within Big Environment

This observation however changed with the years of experience in the industry. When the experience band of different groups are compared, the association with teaching role reduces, replaced with a higher number of responses in *Clarifying with others what is a SnE* (*Figure 4*). Earlier practitioners understood their main responsibility as teaching but with the increase in the years of practice, there were more needs to clarify with others their roles.

4.1.2. Professional Identity

From the data, professional identity indicates strong relation to professional training. The types of training, however, vary in type and structure, mainly 'Professional Training' and what is

considered 'Being Trained'. From the data, three types of classification of training can be organized; (1) Qualifications (educational awards such as diplomas or degrees), (2) Certifications (Training that awards professionally recognized certificates) and, (3) Workshops (Short training or internally conducted training). Two different reclassifications of skills type requirements in terms of (1) Teaching Training and (2) Special-Needs Training were also observed.

Teaching-trained

Special-Needs Training

I-er: Have you been professionally trained to teach the subjects that you are teaching?'
R-: 'Right now, no. not so much of training yet, but more the mentoring and on the job training kind.
But it's also not training. I mean it's more discussion'
G1M01

R-: 'I didn't have any training. During the job, well, there's a lot, you know, training. So in a sense, we have like *** training, which is ***, which our speech therapist would teach us. And I also join trainings, external trainings that the company pays and then our occupational therapies will teach us about sensory play, food, play.'

G1F02

R-: 'Actually I have no formal training working with it. Yeah, so most of the things that I've learned has been on the job training like you learn from, you know from experience and some other people around you.'

G2M01

R-: 'We don't have like official training to do stuff. OK, so uh, when I've joined, right? OK, when anyone joins this school, right? We'll go through orientation, which is held by HR. But then after that we will just start working.'

G2F02

I-er: 'Are you formally, as in when we say formally was referring to professional, professionally trained to work with students with special needs?'
R-: 'I did my *** (certification) about, uh six months into the job'

G1M01

R-: 'I didn't have any training.'
G1F02

R-: 'I am currently doing *** (certification)'
G1F03

R-: 'One of the most recent ones that we had was

***(certification)'

G2M01

R-er: 'We have already like gone through it (certification)'
G2F02

R-: 'Yes. I took my *** when I was with *** as an Allied Educator' G2F03

Delayed Training

R-: 'We came in without any training. So all the training was only given to me after I after I came about a few years after my ***. So it was only after that...But generally *** we still had to rely a lot of experience and the guidance from our fellow *** teachers.'

G3M01

R-: 'Educators are given on the job trainings, more than 95% are not *** trained when they joined. And most of the time, these trainings are overdue for years.'

G3F02

'R-: 'I think it's, uh, probably five years or so into the job. I'm actually now still going through training on like a *** course, so yeah, and for training for the subject.'

G3F04

Figure 5. Samples from Coded Responses (professional subject training and special-needs training)

It was immediately noted that adherence to professional requirements was weak. Where the classification of professional training includes (1) Qualifications and (2) Certifications that awards professionally recognized certificates, the demography presents that only 5 out of 10 of the participants were individuals classified as trained (In the *Singapore* context). Of the trained-SnE with over 5 years of experience, two out of four were trained in their third year and one

was trained in the fifth year of employment. Only G2F03 and G3F03 were trained the year that they joined their organization. It was also noted that all participants in G1 and G2 do not fulfil the conditions of being 'Teaching-trained' in the subjects that they teach. Three out of four participants in G3 indicated that they were 'Teaching-trained' only several years after they joined and taught subjects (Figure 5).

4.1.3. Expectations (Formal Professional Roles)

The theme of Expectations while initially covering a wide range of sub-themes such as 'Culture', 'Responsibilities', 'Professional Requirement' and 'Training', was eventually reorganized with only 'Informal Assessment' and 'Parents' Expectations'. The provision for this decision was due to contextual understating in Singapore where SnE are only considered qualified upon completion of a diploma or higher program in the special-needs field, and that half of the participants did not fulfil this criterion. Further investigation revealed a correlation between 'Parent Expectations' with many other core and sub-themes (Figure 6). Indicating it as an influential factor across all investigated parameters. It was also noted that most assessments of SnE are done informally with observations and appraisals conducted where the focus was placed on 'Teach'. Appraisal systems were noted to be all done via 'observations' or 'feedback' by coaches or supervisors (Figure 7). It was noted that there were no indications or requirements of professional development which was coded as one of the sub-themes in Professional Identity.

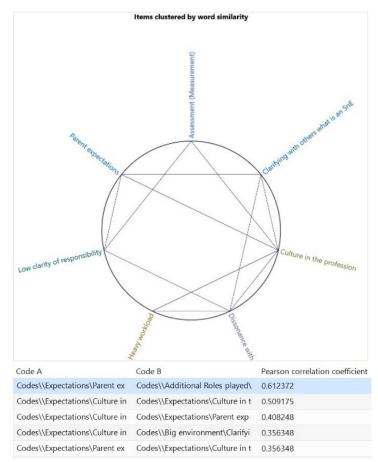


Figure 6.

'There are appraisals, where you have to write you know, initial goals and then see at the end of the year if you've met the goal. And I mean, but for me it's mostly just to see if the children have changed for the better in the time that I know them.'

G1F02

'We have fortnightly coaching sessions whereby my coach and direct supervisor will go through a basic competency checklist with regards to the teaching observed in class.'

G1F03

'We have performance appraisal which have competency checklist like self-mastery, interpersonal, supervisory, organizational and technical. There is 3 goal setting that we do for students, department and organization.'

G2F02

'R-: My school does not have a assessment so for me to measure my success is to see how my student progress.'

G2F03

'Observations by our leaders...appraisal system through observations.' G3M01

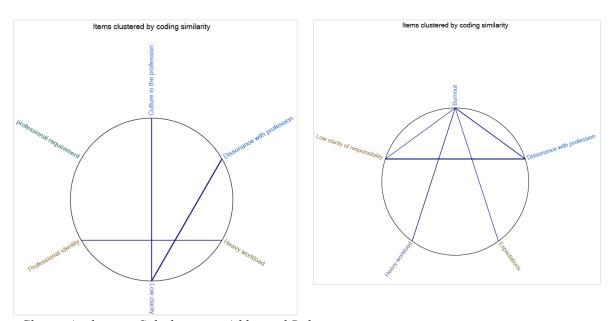
'Performance is first assessed at school with their Reporting Officer, it can be anyone from Vice Principal to Head of Department of Student Development or Head of Year. The more you have done in the school in terms of programmes or "success" of students, the higher your ranking.'

G3F03

Figure 7. Samples From Coded Responses

4.1.4. Additional Roles (Informal Professional Roles)

The concept of hidden professional roles and responsibilities identified by past literature includes task which falls outside the standards defined within the profession. The sub-themes classified within this core-theme includes 'Additional Roles played\Heavy workload', 'Additional Roles played\Low clarity of responsibility', and 'Additional Roles played\Responsibility – Social'.



Cluster Analysis on Sub-themes in Additional Roles

Code A	Code B	Pearson correlation coefficien	Code A	Code B	Pearson correlation coefficie
Codes\\Additional Roles played\Low cl	Codes\\Professional identity\Diss	0.666667	Codes\\Additional Roles played\Low cl	Codes\\Professional identity\Diss	0.666667
Codes\\Additional Roles played\Low cl	Codes\\Expectations\Culture in t	0.509175	Codes\\Professional identity\Dissonanc	Codes\\Burnout	0.5
Codes\\Professional identity	Codes\\Additional Roles played\	0.408248	Codes\\Additional Roles played\Heavy	Codes\\Burnout	0.408248
Codes\\Professional identity\Dissonanc	Codes\\Expectations\Culture in t	0.218218	Codes\\Expectations	Codes\\Burnout	0.333333
Codes\\Professional identity\profession	Codes\\Additional Roles played\L	0.218218	Codes\\Additional Roles played\Low cl	Codes\\Burnout	0.333333
Codes\\Professional identity\profession	Codes\\Professional identity	0.218218	Codes\\Additional Roles played\Heavy	Codes\\Professional identity\Diss	0.102062
Codes\\ Additional Poles played\ Heavy	Codes\\ Professional identity\ Diss	0.103063			

Figure 8. Cluster Analysis on Sub-themes in Additional Roles

It was noted that 'Additional Roles played\Low clarity of responsibility' has a moderate correlation with 'Dissonance with profession' and 'Culture in the profession' (Figure 8). Further analysis using 'Low clarity of responsibility' sees a networked relationship between 'Dissonance with profession' and 'Burnout' with a moderate correlation (Figure 8). It was also noted that workload increased over the number of years in the industry, but low clarity stayed consistent. An increase in other roles played was observed with the increase in the number of years in the industry (*see Appendix B).

4.1.5. Burnout

*Not discussed in this report.

4.2. Conclusion of Findings

From the above-collated core themes and sub-themes, the following presents the response to the research question the research set out to answer:

Research question 1 - What are the formal and informal professional expectations of a SnE and how strictly are they adhered to?

Formal expectations were found to be inconclusive due to the largest disparity between established professional requirement and research findings. Informal expectations for the SnE profession reveal mixed findings with low clarity and are thus inconclusive (no significant findings as none of the interview participants was able to provide a defined range of roles and responsibilities). Findings on formal and informal professional expectations of the SnE profession are thus noted to be 'ambiguous', with 'ambiguity' representing the inconsistency of expectations.

Research Question 2 - What are social and cultural factors that contribute to professional expectations?

The contributor of 'Parents' was noted to be substantial in all core and sub-themes, indicating it as a highly influential element of professional expectations. It was noted that the role that SnE plays often overlaps with the other professions, often at the demand of parents and organizations. This also resulted in dissonance within the profession as low clarity of professional responsibilities to respond to those demands ensues.

Research Question 3 - What are the professional identification factors and their supportive/impeding factors?

Professional identification factors were mostly noted through occupational involvement and qualification/certification attainment. Impeding factors include (1) lack of qualification attainment with the occupational role as well as the (2) low clarity of roles. Low clarity of role was the highest-rated theme of burnout and dissonance in the profession and was noted to originate both from 'parents' and 'organization' rather than governing bodies. 'Parents' was

also noted to be both a supportive and impeding factor in this research, showing high indication as collaborators but also as a contributor to the low clarity of the SnE's role.

5. Implications, Discussion and Recommendations

Due to Singapore being a generally younger country compared to other developed countries, special education is still under constant revision in terms of policies and legal considerations. It is in the researchers' opinion, however, that special education in Singapore has reached the level of maturity that marked changes are needed for it to meet the changing needs of the world. In the almost 40 years since SnE training began, the profession reached a crossroads where its maturity needs to be met with appropriate responses from infrastructures (government and agencies) to support and reflect the maturity of the industry to meet new emerging challenges. The following discussion and recommendation are based on the findings of the research conducted which, although by no means conclusive, presents as authentic findings from practitioners' position. The discussion corresponds to *Collin and Mansfield's* proposed model but wishes to highlight the bi-directional relationship between agency and structure, that each has its functional role that is independent yet intricately conjoined in a systemic way. The suggestions made are from the view that an active state of growth is needed instead of a passive state due to the advent of the maturity of the industry.

5.1. Organizational Level

5.1.1. Clarity of Roles

The research conducted found that the low clarity of roles is the major contributor to burnout and professional dissonance, consistent with past research on Teachers and SnE (Buysse & Wesley, 1993; Gersten et al., 2001; Lewis & Crisp, 2004; Demirkasımoğlu, 2010; Sindelar, Brownell & Billingsley, 2010; Ryan, 2010). While the arguments can be made that roles and responsibilities can be made clearer prior to hiring, the recommendation made here is to restrict or limit roles and responsibilities to within professional boundaries. Key findings from the research indicate the mixed roles that SnE plays in conjunction with other professional roles within the industry: Social worker, Speech Therapist, Occupational Therapist, Psychologist, Volunteer, Mentor, and Organizer. It was also noted that task and role clarity paradoxically does not become clearer even with the extended number of years in the industry but rather becomes more ambiguous. At the organizational level, there is a need to clarify the roles that SnE play. Organizations should possess the mettle to only provide the service that they were designed and equipped for. This may include steps to exclude the provision of services and taking on projects that the organizations do not have the subject mastery of, due to the different skill sets required for those projects. Such would require organizations to resist the demands of other stakeholders, such as parents, in the industry and to restrict roles and responsibilities to only what SnE were trained for.

5.1.2. Professional Distinction

Another step that organizations can take to protect the profession is to resist the hiring of paraprofessionals to fulfil manpower planning. Past research indicated how the use of paraprofessionals as circumstantial emergency support does aid the manpower crunch but were indirectly detrimental to the profession in the long run (*Giangreco*, *Broer & Suter*, 2009; *Giangreco*, 2010; *Fisher et al.*, 2021). Paraprofessionals contributed to the low clarity of roles played by SnE as they either introduced entirely different subject expertise into the already complex work environment or reduce the level of subject expertise of the role they are hired to support. Findings from the research noted dissonance within the profession due to the variety

of roles that they were expected to play. The dependency on paraprofessionals needs to be reduced or avoided to promote professional distinction of the profession.

5.1.3. Appraisal System

Where the clarity of role reflects the roles and responsibilities that SnE plays, the appraisal system represents the actual measurement of success by organizations in the industry. Findings from the research indicate that: (1) the current appraisal system in the industry is based on a mentoring system that seniors grade junior staff and (2) parents' expectations have a significant impact on appraisal systems. The mentoring system was noted to be a strong indicator of professional retention due to the different types of support that it can serve for entry-level SnE (Gersten et al., 2001; Fore, Martin & Bender, 2009; Cancio et al., 2018). It was specifically noted that 'Teaching' and its synonyms were a significant component of how SnE were assessed. The contradiction of the appraisal system, however, lies with the issue that most SnE were not trained professionally to carry out their roles. The appraisal system also highlighted a very broad range of agendas other than 'Teaching' to include 'Competencies', 'Organizational' and 'Committees'. The appraisal system covered such a wide range that it resulted in an abstract measurement of success. The appraisal system should focus on skills-based assessment with professional development at its core rather than task-based considering that 'Teaching' is the core expectation of the profession.

5.2. Professional Level

Consistent with Collie and Mansfield's' proposed model (2022), most of the stress factors were noted to be imposed from a hierarchical position; that much of the stresses were based on the roles and responsibilities determined by the organization. However, it is the researcher's opinion that a bi-directional relationship rather than a mono-direction relationship exists. Conceptions of social systems see developments of bi-directional influences when development reaches a certain level of advancement reflected by its maturity (Becker, 1952; Goldstein, 1984; Smith, 2005; Durkheim, 2013). It is the researcher's opinion that SnE profession in Singapore has reached a certain level of maturity that informed practices from the practitioner level can go forth to influence professional and policy-level decisions. Community of Practice (CoP) is a possible avenue to utilize to collect and collate such information. Findings from the research conducted indicate that CoP, in the context of Singapore, tends to be employed only from a management paradigm that was almost strictly occupational in nature with a focus on subjects or project workgroups. CoP utilization can and should transcend occupational functions to include also emotional support groups, creating in itself a support group where necessary. A recommendation is to create CoP workgroups of entry-level and mid-level SnE that can generate new paradigms for examining issues in the everchanging education landscape. CoPs can serve this purpose by keeping growth as an active pursuit instead of a passive or responsive slate.

5.3. Government as the Largest Professional Body

While the governing body is not inherently part of Collin and Manfield's model, this discussion is contextual to the context of Singapore. In the context of Singapore, the largest professional body and representation is presented in the form of the *Ministry of Education* (MOE).

5.3.1. Formal Regulations

The research presents findings that reveals weak professional identification due to (1) low clarity of role, (2) weak adherence to professional distinction, and (3) inadequate training

preparation for SnE. A suggestion is to introduce formal regulations of the profession in the form of institutionalizing the profession. Where the definition of being considered a SnE requires qualifications (educational awards such as Diplomas or Degrees), only one participant in GI and G2 met this criterion. Untrained SnE however, does not hold different responsibilities from trained SnE. While most GI and G2 participants are trained at the certification level to fulfil the 'Special-needs Training' component, they lack training for the 'Teaching Training' component. The lack of training was mostly made for by short training, workshops or learning on the job which does not adequately account for skills requirements. Most of the workshops for 'Teaching Training' were internally conducted or done in a discussion manner rather than subject specific. This also accounted for some level of dissonance as they do not feel that they can 'call' themselves professionals. This was consistent with the experience of G3 in their early years in the industry, highlighting a disturbing trend of staleness in the advancement of the industry.

Formal regulation of the industry by MOE could serve a multi-pronged purpose. Prior literature notes the importance of establishing a body of knowledge and expertise to legitimize a profession. Where two different types of training are required concerning the roles and tasks (teaching and special-needs care) that a SnE has to carry out, it would make sense to consider both types of training necessary. A regulated training institute could adequately conduct training in both teaching and special-needs care. Not only would formal regulation address the issue of quality education, but it could also address the shortfall of manpower in the industry. The data collected indicate manpower issues within the industry. With formal regulation, the production of trained-SnE could be projected against the demand of the industry, creating a dependable production chain akin to workforce production. Another matter it could address is with establishing a sense of professional identity. Trends from G1 and G2 indicate that they do not feel associated with SnE identity as they were not trained. Weberian see professions as a form of exclusivity where regulations create inclusion and exclusion criteria (Kraemer, 2005; Durkheim, 2013; Becker, 2017). Both inclusion and exclusion create stipulations for identity associations to form (Buysse & Wesley, 1993; Lewis & Crisp, 2004). When understood from a social context, it can create stronger identification with a profession, leading to further advancement in the specific profession (Foucault, 1998; Smith, 2005; Edwards, Harrison & Tait; 2013, Sandro, M, 2015).

5.4. Contradictions with Past Research

A contradiction found with this research to past research was that past research indicated that managing students' learning needs with their special needs accounted as a significant stress factor (*Fore, Martin & Bender, 2002; Cancio et al., 2018; Brittle, 2020*). However, no such indicators were noted for any parameter researched in this research. A hypothesis would be that SnE entering the industry were already mentally prepared to manage students and thus were more accommodating to the learning needs of the students. More research could be done in the future to better address this finding.

6. Limitation and Conclusion

6.1. Limitation of Research

A noted limitation of the research is the demography of the research participants. While invites were sent to 14 different organizations/special schools during the initial research design phase to engage a wider selection of participants, none of the organizations/special schools accepted the invite. This resulted in the changing of sampling methods to convenience sampling, after

which snowball sampling was from referrals by initial research participants. The 10 participants are from the two countries of which 9 were from Singapore and only 1 was from the UK (G1F02). The limited representation restricts the generalization of the finding to some extent. The research was conducted from a detailed qualitative approach which provides a perspective of the industry from practitioners in the field. While it fills the paradigm of understanding from a contextual view, triangulation by research on different functional tiers of the industry would provide a more holistic understanding. Future research can fill the gaps in the current research by providing different dimensions of perspectives. A suggestion for future research is to include an intersectional lens outlook to include components of organizational study which were not accounted for in this research.

Another limitation was that 7 of the 10 participants works exclusively with students with Autism. Most special schools and organizations predominantly cater to individuals with autism compared to other spectra of special needs which often get grouped together in an organization (e.g., Down syndrome, cerebral palsy, dyslexia). Future research can expand to research into the industry of early interventions for special needs as another predominant constituent that has similar overlapping professional understandings.

6.2. Conclusion

The maturity of the teaching profession can be reflected in the many unions and organizations that represent it given its long history of development. While special education has reached some level of maturity in countries that began earlier and followed natural development, Singapore has reached the crossroad where advancement in both the profession and industry is needed. The challenges that the profession meets are a direct reflection of the maturity of the industry, and upon a saturation point, growth is needed. While emergency responses can act as quick fixes to situations, they cannot be relied upon as an answer when the root problem is not addressed. When emergency responses are used too frequently, they become an impediment rather than a solution as it erodes the institutional set-up. A mature system must have the allowance for reflexive growth as a closed system will eventually meet the threshold where it is unable to meet the demands of the ever-changing world. Specifically, in the education sector where the 'new normal' is constantly being redefined, active growth is needed. The justification for any profession must be in their representation of value and capability within the system. All actors, represented by governance, organizations, and participants, are active components, and any stale actors that do not actively seek growth will be bluntly replaced upon reaching the threshold or saturation of the complex social environment.

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Appendix A

Questions	RQ1 What are the formal and informal professional expectation of a SnE and how strictly are they adhered to?	RQ2 What are social cultural factors that contributes to professional expectations?	RQ3 What are the professional identification factors and their supportive/impeding factors?
Do you see yourself as a professional? Why do you say that?	X	X	X
Do you see yourself as belonging to a professional community? How would you describe your professional community?	X		X
How did you become part of this professional community?			X
What does it mean to be a 'good professional' in this community? How would you know if you were doing a 'good job'?	X	⊠	
Are you aware of what the requirements are of a SnE according to regulations?	☒	☒	
What do you think the school requires of you in your role and are they reasonable?	X	X	
What do you think are the expectations of you by your clients, how do you think they are formed and are they reasonable?	区	⊠	
Do you feel that you are adequately trained and equipped to play your role as a SnE?	X		X
What sort of training have you gone through to prepare you for your role? What do you think you need more?	⊠		
As well as training, what other support do you need as a SnE and where would you get them?		X	X
Are there any misunderstandings about your profession that you think should be clarified to help others understand your work?	X	X	X

Appendix B

Coding	G1M01	G1F02	G1F03	Sub total	G2M01	G2F02	G2F03	Sub total
Codes\\Additional Roles	2	3	1	3	2	3	1	3
played	2	3	1	3	2	3	1	3
Additional Roles		1		1	1	2	1	4
played\Heavy workload		1		1	1	2	1	4
Additional Roles								
played\Low clarity of	1	2	1	4	1	3		4
responsibility								
Additional Roles								
played\Responsibility -	1			1	1	4		5
Social								
Codes\\Big environment	3	3	2	3	1	3	1	3
Big environment\Associated								
professional practice	1	1	1	3		1		1
Big environment\Clarifying								
with others what is an SnE		1		1	1	1		2
Big environment\Parental								
support				0	1	2		3
Expectations\Culture in the								
profession		1	1	2		1		1
Expectations\Culture in the								
profession\Community of		1	1	2	1	1		2
practice - No awareness		1	1	2	1	1		2
Expectations\Culture in the								
profession\Community of	1	1		2			1	1
Practice - Presence	1	1		2			1	1
Expectations\Culture in the								
profession\Responsibility -	3	1	2	6		1	1	2
Teaching	3	1	2	U		1	1	2
Big environment\Supportive								
factors	1	1		2	1		2	3
Codes\\Burnout	1	1		2	1		1	2
Burnout\Not supported	1	1		2	1		1	2
Codes\\Expectations	3	1	1	3	2	1	1	3
Expectations\Assessment	1	1	2	4	1		1	2
(Measurement)	1	1	2	4	1		1	2
Expectations\Parent	2		1	2		1		1
expectations	2		1	3		1		1
Codes\\Professional identity	2	1	1	3	3	1	1	3
Professional								
identity\Dissonance with	2	1	1	4	1	1	1	3
profession	2	1	1	•	1	1	1	3
Professional								
identity\professional	1			1	1			1
requirement	1			1	1			1
Professional								
identity\Professional training	4	1		5	4	4		8
Professional								
identity\Professional	4	1	1	6	3			3
training\Being trained	+	1	1	U	3			3
uanning Deing trained								

Appendix B (Cont)

Coding	G3M01	G3F02	G3F03	G3F04	Sub total
Codes\\Additional Roles played	1	4	3	1	4
Additional Roles played\Heavy workload		4	2		6
Additional Roles played\Low clarity of responsibility	1	2	1		4
Additional Roles played\Responsibility - Social	2	2		1	5
Codes\\Big environment	3	2	2	2	4
Big environment\Associated professional practice			1	1	2
Big environment\Clarifying with others what is an SnE	3	2		1	6
Big environment\Parental support			1	1	2
Expectations\Culture in the profession	1	1	1	2	5
Expectations\Culture in the profession\Community of practice - No awareness		1			1
Expectations\Culture in the profession\Community of Practice - Presence	2		3	1	6
Expectations\Culture in the profession\Responsibility - Teaching	1		1	1	3
Big environment\Supportive factors			1		1
Codes\\Burnout		1	1		2
Burnout\Not supported		2	1		3
Codes\\Expectations	1	1	1	1	4
Expectations\Assessment (Measurement)	2	1	1	1	5
Expectations\Parent expectations	2	1	1	1	5
Codes\\Professional identity	2	3	2	2	4
Professional identity\Dissonance with profession	2	5	1		8
Professional identity\professional requirement				2	2
Professional identity\Professional training	4	3	1	1	9
Professional identity\Professional training\Being trained	4	2	1	3	10