

Mapping Transitions in Interpersonal Learning for Students With Additional Needs

Bernadette Coles-Janess and Patrick Griffin

*Assessment Research Centre, Melbourne Graduate School of Education,
The University of Melbourne, Australia*

This article reports on the development of an interpersonal measure for students with additional learning needs. A questionnaire and learning continuum were constructed using a methodology devised by Griffin (2007a) for creating criterion-referenced frameworks. Teachers reported on 1619 students, ranging in age from 3 to 18 years. Analysis of the data, using item response modelling, found the questionnaire was able to measure interpersonal capacity reliably over a large ability range. The interpersonal domain is an imprecise and multifaceted area, so how teachers should support the learning needs of students within it is not always apparent. The devised measures offer the prospect of a more systematic and evidence-based approach to educating students within this domain.

Keywords: development of social competence, social skills, disabilities, assessment, test construction

Schools are a pervasive socialising force second only to families in their impact on the development of most children. In recognition of this pivotal role, society holds high expectations of them and essentially entrusts them with the mission of equipping students for life. Typically, this has led schools to focus on the academic essentials, the three R's, but increasingly the need to focus on a fourth R, relationships, is being realised (Ladd, 2000). This is not surprising as the ability to establish successful relationships with a range of people is fundamental to the ongoing life success of all students.

For many children social interaction appears to come naturally, with the basics seemingly effortlessly grasped and executed and relationships readily made. However, a significant number struggle and for some subgroups of children acquisition of the basics remains elusive. In a policy report released by the National Institute of Early Educational Research it was estimated that approximately 20% of all children entering kindergarten were not sufficiently socio-emotionally developed to engage with the curriculum or their peers (Boyd, Barnett, Bodrova, Leong, &

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Address for correspondence: Bernadette Coles-Janess, Assessment Research Centre, Melbourne Graduate School of Education, 234 Queensberry Street, The University of Melbourne, Parkville 3010 VIC, Australia. E-mail: coles@unimelb.edu.au

Gomby, 2005). For some groups of children the incidence of socio-emotional difficulties is much higher; for instance, in some disadvantaged lower socioeconomic groups (Boyd et al., 2005), and among those with learning disabilities (Forness & Kavale, 1996). Unfortunately, research indicates that unaddressed childhood socio-emotional problems are highly predictive of profound difficulties later in life (Elksnin & Elksnin, 1998).

Within the Victorian educational sector, one immediately discernible group of at risk children are those funded under the Program for Students with Disabilities (PSD). The criteria for PSD funding of a number of the disability categories in this program require that children evidence diminished adaptive (social) capacity either as their primary or secondary difficulty. Actually, this requirement extends to three of the more prevalent of seven disability categories (intellectual disabilities, autism spectrum disorder and severe behavioural disorder) accounting for 87% of all funded students, or approximately 15,000 students (Victorian Auditor General, 2007). In light of a defined need and high risks in not supporting learning in this area, the question arises of how the interpersonal learning needs of this group of students are being met?

In Victorian schools, the interpersonal learning of most students is supported by the 'Interpersonal Development' component of the Victorian Essential Learning Standards 2007 (VELS). These standards supply a basic framework that matches educational goals to perceived age appropriate behaviours and understandings. That is, anticipated developmental trajectories infuse the curricula to various degrees and act as a conceptual frame upon which current and future instructional decisions can be made. However, while the VELS framework may serve the needs of teachers in respect to typically developing students it offers little support when teachers are confronted with atypically developing students, particularly low ability PSD funded students. This is because the ability range and understandings of many students with additional needs are not reflected within the curriculum framework.

Consequently, an alternative process has been established to meet the educational requirements of PSD funded students. This system establishes a within school student support group to develop an Individual Education Program (IEP) that specifically addresses the learning of a particular student, with their progress tracked against their specified goals. This idiographic approach to instruction is seen as the only way of meeting the learning needs of such a diverse ability group. However, while IEPs may meet the educational requirements of individual students, such an individuated approach does not serve the needs of the educational sector particularly well because it hampers processes essential for informed professional practice, such as professional discourse, knowledge formation and external review.

The aim of this study was to develop assessment materials, based on functional capacity, that could profile qualitative shifts in interpersonal ability across a diverse range of students with additional learning needs. The following sections sketch how this process was undertaken and the preliminary outcomes.

Method

Construction of a Criterion-Referenced Framework for Interpersonal Processes

Construction of an interpersonal questionnaire and developmental pathway was founded on a methodological approach for creating criterion-referenced frameworks that has informed the work of Professor Patrick Griffin over many years. See Griffin (2007a) for an explication of the theoretical foundations of the approach that links the work of Glaser, Rasch and Vygotsky. For a detailed account of the process of building a developmental

continuum, see Griffin and Care (2007). The methodology was employed because the outcome results in superior instrumentation that can more fully inform instructional process. If the methodology is adhered to, levels of a construct are ordered along a continuum running from low to high competency. In this instance, measures were constructed to reflect and track increasing interpersonal/social ability.

An important component of the approach involved the rendering of conceptual understandings into representative observable phenomena. An initial overarching domain of inquiry, in this case interpersonal processes, was progressively interrogated so that the conceptual understandings (at the domain, strand and capability levels) were titrated down to observable indicators and finally the quality criteria that form the response choices of the questionnaire, (see Figure 1). The indicators needed to be behaviours that could be observed. In a school context, this is best thought of as what a student can do, make, say, or write (Griffin, 2007a). The point of divergence from many measures and the means by which a progression of ability can be mapped are the quality criteria. To chart successive shifts in competency, the devised criteria needed to reflect shifts in the quality of a performance that is 'how well' a task was undertaken (Griffin, 2007b).

Using the Insights of Practitioners in the Construction Process

In line with the aim of creating a useful tool for teachers their input into the construction of the measures was seen as crucial and was sought at every stage of the process. This was done formally through a series of workshops and supplemented by numerous visits to a range of schools. An iterative process ensued in which foci from the research literature were critically appraised by teachers and their input was then synthesised and reconsidered in light of the literature. This kept the work grounded and ensured that the final product was one that teachers could utilise.

Outlining the Domain of Inquiry

This study commenced with an examination of the broad goals that the Department of Education and Early Childhood Development holds for its students in the *Interpersonal*

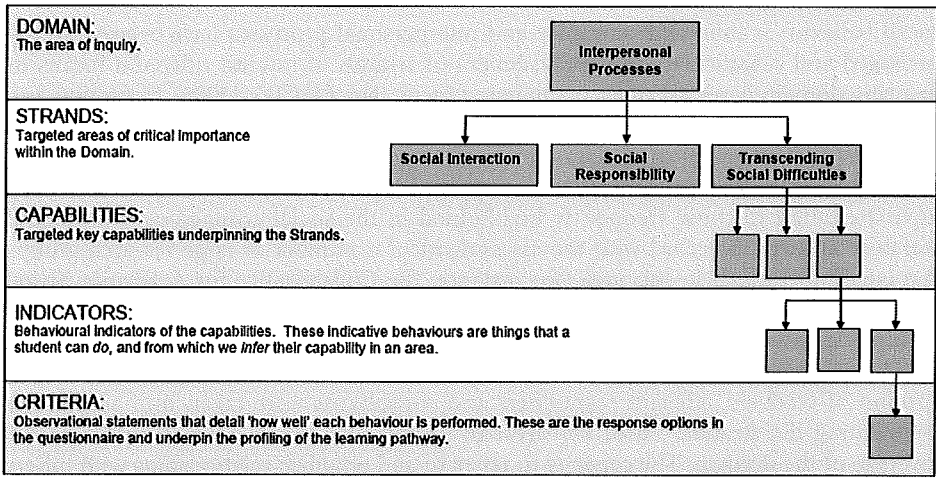


FIGURE 1
Components of a criterion-referenced framework, adapted from Griffin and Care (2007).

Development domain of the VELs. The overarching aims of the area, such as the facility to build social relationships and cooperatively function within groups, align to conceptions of social competence and social skill within the research literature. Social skill and social competence are distinct yet conceptually aligned concepts frequently used interchangeably. One often cited delineation made by McFall (1982) views social skills as the fundamental processes underpinning social engagement while social competence is an evaluative judgment made by others in respect to the perceived adequacy of an individual's performance in the social arena.

Guralnick (1992) offers a good working model of social competence. At the foundation of his conception are an individual's basic capacities in language, cognition, affect and motor functioning. These capacities need to be harnessed and integrated into a repertoire of social skills and this repertoire needs to be strategically and interactively drawn upon to meet the contextual needs of a variety of social situations. The successful deployment of the appropriate combination of social skills within a specific context is regarded as social competence. Alternately this latter part of the process has been called 'social intelligence' or 'social cognition' by some and 'social understanding' by others. Sargent (1998), preferring the former term, states that social cognition is 'the ability to understand, interpret and take appropriate actions relevant to different social settings, personal interactions, and complexity of situations' (p.4) and it is the most difficult area of social activity for people with intellectual disabilities to master.

This study was interested in constructing instrumentation that could track qualitative shifts in student interpersonal ability from basic social skills through to rich and adaptable social understandings that are typically thought of as social competence. Rose-Krasnor (1997) has cautioned researchers not to confuse 'a limited number of specific skills or indices with the flexible, multidimensional construct of social competence' (p. 129). It was with this admonishment in mind that the term *interpersonal processes* was used throughout the project, to reflect social exchanges operating at qualitatively different levels. It was also used as a means of connotating the dynamic and interactive nature of social phenomena being measured.

Establishment of Strands

Social behavior is inherently complex and interpersonal processes have been variously envisaged and categorised. The establishment of strands of interest offered a means of ensuring domain coverage while maintaining focus. The OECD's (2005) Definition and Selection of Competencies project was similarly focused on key competencies and concluded that relational success was contingent upon the ability to: relate well to others, cooperate within groups, as well as manage and resolve conflicts. These overarching capacities align to those frequently highlighted in the social competence/social skill literature and are in accord with the assessments of a number of large research groups that conduct research in this area (for instance: the Collaborative for Academic, Social and Emotional Learning; the National Institute of Early Educational Research; and the National Scientific Council on the Developing Child).

The aforementioned reviews, appraisal of the research literature, as well as the opinion of teachers, relevant researchers and consultants were taken into account in formulating the strands. Three key areas of performance were deemed sufficient for coverage of the domain. The capacity to relate to and establish relationships with others was annexed under the term *Social Interaction*. The capacity to function within the school environment and interact with groups of others in socially prescribed ways was subsumed under the term *Social Responsibility*, while an area that encompassed social

self-regulation and social problem-solving capacities was called *Transcending Social Difficulties*. It should be noted that the proposed framework was devised as a tool to help generate structure, and was only one of many possible ways in which the interpersonal domain could have been conceptualised.

Identifying Capabilities and Behavioural Indicators

Interpersonal processes can be examined from various points of reference and levels of complexity. However, because of the ultimate goals of the research, the study focused in at the individual level and used a social skill approach for the collection of information. Nevertheless, this still left the question of which behaviours should be focused on. Various methods for selecting coherent social skill sets have been used by researchers, such as theory-based, normative, competence correlates and social validity. In this study, aspects of the initial three were infused through a social validity approach. In this approach the social values embedded within specific situational contexts inform which social skills should be focused on, with those correlating with important outcomes in the relevant context favoured. For instance, within a school setting this frequently sees academic skills and what Elksnin and Elksnin (1998) call 'teacher-pleasing social skills' being valued over others.

In contrast, this study favoured social skills that aided relational success over those of a more academic nature. According to Boivin and Hymel (1997), peer interaction and play offers children the opportunity to learn about themselves and others in ways not afforded by child–adult relationships. Piaget (1932) contended this was the result of the differential power dynamic inherent in child–peer versus child–adult interactions. For it is typically only within the more balanced 'horizontal' power dynamics of peer-to-peer interactions that children are exposed to opportunities to negotiate and compromise. learning, and social learning theories see children learning from peers both directly through instruction (peers telling them what to do) and indirectly through observing what their peers actually do. This study, while recognising the interplay of multiple relationships on the development of children, focuses on school relationships with a particular privileging of behaviours supportive of successful child–peer relationships, including friendships. Consequently, this saw prosocial behaviours like sharing, loyalty and cooperation included in the measure over behaviours concerned with a student's capacity to complete their work on time, remain in their seat, or keep their workspace tidy.

Differentiating Performance Quality

Despite the terminology, researchers within the social skills and social competence arena have not typically focused on skills or competencies. Rather, much of the field has operated on a deficit model (Welsh, Parke, Widaman, & O'Neil, 2001). However, more is gained from understanding what a student can do versus what they cannot. As Griffin (2007a) exhorts, educators need to be able to 'identify students' emerging skills and provide the right support at the right time at the right level' (p. 90). This requires the capacity to determine where students actually are and where they are likely to go. Establishing what students currently can do and understand and what they are able to do and understand with assistance lies at the heart of optimising their learning (Vygotsky, 1978). Such understanding requires a developmental conception of interpersonal skill.

However, this has been hampered in respect to interpersonal skills, because frequently they are measured dichotomously, with a person rated as either competent or not on the particular skills composing a measure. As such, no gradation in actual ability

is accounted for and intervention can only address initial skill acquisition or frequency of demonstration. This means levels of understanding are not readily distinguished, nor catered for, when educationally intervening. Yet, by addressing the question of 'how well' a specific type of behavior is executed, social ability can be tracked along a performance continuum and the particular learning needs of students along the ability progression can be addressed.

The quality criteria were constructed during a workshop with teachers using rubrics for writing criteria developed by Gillis and Griffin (2004). Teachers were encouraged to write criteria taking into account qualitative shifts in student ability, ensuring that the criteria they wrote represented behaviours that could be observed within a school context. On subsequent review of the criteria, themes consistent with the Affective Taxonomy developed by Krathwohl, Bloom and Masia (1964) were discerned. This taxonomy was then used to formulate and reformulate a number of criteria and as such a theoretical hierarchy aligned to this underpins the initial competency framework of the questionnaire (see Table 1). The hypothesised continuum proposed qualitative shifts in social involvement and understanding. As a student progresses along the continuum, social knowledge is increasingly internalised and eventually students are able to operate both independently and adaptively. Apart from its alignment to Krathwohl et al.'s taxonomy, the continuum's transitions were seen to correspond to the processes of internalisation and gradual acculturation theorised by Vygotsky (1978) and Bruner (1996) to occur with student development/learning.

The subsequent draft questionnaire was piloted and critiqued by 24 teachers from a variety of school settings (one special development school, one specialist school, one specialist autistic school, two mainstream primary and two mainstream secondary schools). These teachers were encouraged to critically appraise the questionnaire for ease of use, scope and language usage and to suggest ways that it could be improved. Teachers involved in the workshops were not used in the piloting. The outcome of this review process along with in-house critiquing resulted in the questionnaire used for data collection.

Data Collection

Participation in the study was voluntary, with schools from across all Victorian regions taking part. Both mainstream primary and secondary schools, along with a variety of specialist sector schools, participated (56 specialist and 22 mainstream). Data on students that were PSD funded or those who fell below benchmarks on statewide testing

TABLE 1
Initial Interpersonal Processes Continuum

Level name	Description of performance level
Adaptive	Internalised understandings can be flexibly adapted to meet the needs of the situation, even in unfamiliar contexts or with unfamiliar others.
Valuing	Beginning understandings guide behaviour in familiar situations and or with familiar others.
Willing/sensitive	Sensitivity to contextual cues including the behaviour of others is used as a guide to own behaviour.
Acquiescent	Behaviour is commenced on the instigation of others, supported or guided by others.
Attentive	Alert directed attention towards others.
Aware	Beginning consciousness of social phenomenon.

were eligible for inclusion in the study. Over 650 teachers reported on 1619 students. Students ranged in age from 3 to 18 years. Males were more strongly represented across both school sectors representing 68% of the students reported on from mainstream schools and 65% in the case of the specialist sector. Additional learning needs in the socio-emotional area were reported for 66% of mainstream students and 93% of specialist sector students.

Data Analysis and Continuum Construction

Item response modelling is a measurement approach that allows for simultaneous calculation of both item difficulty and person ability (Rasch, 1980). These two factors are seen as interactive with the difficulty of an item in combination with the ability of the person dictating the likelihood (probability) of a given response. For this study an adaptation of the simple logistic Rasch model, namely the Partial Credit Model (Masters, 1982), was used to estimate a distribution of student latent ability based on teacher questionnaire responses. Initial analysis involved the calibration of item difficulty and latent ability distributions so that item and student location would be aligned onto the same scale and direct comparisons could be made.

Assessment of the feasibility of individual items was undertaken. Consideration of various parameters led to the deletion of 2 of the 34 items and the modification by category consolidation of others. Following these adaptations, the fit of both items and persons to the specified model was good. The high separation reliabilities of both items (.99) and students (.98) evidenced the measure's facility to map interpersonal capacity successfully over a large range. The alpha reliability of the measure was also high at .98.

Construction of a developmental progression commenced with the ordering of items (quality criteria) by empirically derived difficulty (Figure 2). Consideration of the content and relative difficulty of items led to the discernment of a number of item clusters. Items describing related types of skill and understanding were banded together. Themed groups of items corresponding to meaningful shifts in ability are denoted by

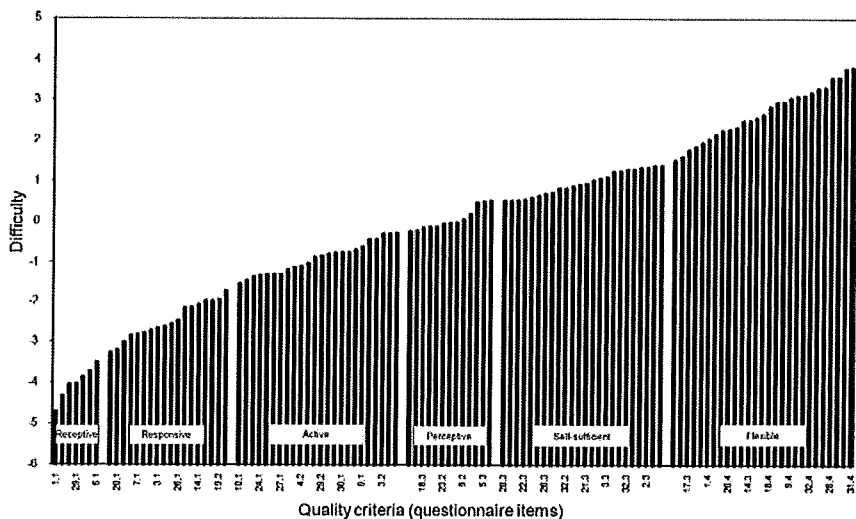


FIGURE 2
Quality criteria ordered by difficulty with overlaid performance level.

TABLE 2
Revised Interpersonal Processes Continuum

Level name	Brief description of revised performance level
Flexible	The student is learning to apply their social understanding flexibly across familiar and less familiar situations. Increasingly they can view circumstances from multiple perspectives and are able to support and encourage their peers.
Self-sufficient	The student is learning to regulate their behaviour in familiar situations and/or with familiar others. The student operates independently and cooperatively and is able to negotiate most routine social situations without adult assistance.
Perceptive	The student is learning to use contextual cues including the behaviour of others (for example peers) to guide their behaviour across a range of familiar social situations when unsure (rather than relying on adult guidance).
Active	The student is learning to undertake simple familiar and/or highly personally valued activities independently. Social involvement is not solely adult dependent with some activities initiated by peers and others by the student.
Responsive	The student is learning to participate but this essentially occurs at the instigation of familiar adults who direct and regulate the student's involvement.
Receptive	The student is learning to focus their attention on others and acknowledge their presence, but their interaction with others remains limited.

gaps and an overlaid level name in Figure 2. A brief overview of each performance level can be found in Table 2. Review of the hypothesised framework in Table 1 (created during questionnaire construction) showed the empirically informed framework to be roughly aligned with the proposed one but more informative. This meant that the performance steps as envisaged and crafted by teachers were found to be in accordance with the theorised trajectories and the empirically determined item difficulties.

Discussion

The aim of this study was to develop materials that could assess and track interpersonal ability amongst students with additional learning needs. Preliminary analyses of the data suggest that this aim has been met, with statistical output from Rasch analyses indicating that the questionnaire is reliable and appropriate for a large ability range of students. In addition, the proposed progression of interpersonal ability, underpinning the questionnaire, was found to align well with the collected data. Although these preliminary results are encouraging, additional data collection and analyses are being undertaken to verify initial findings. Furthermore, an appraisal of the usefulness of the materials, to support student learning, will also need to be undertaken.

So, what prospects do these materials hold for teachers and students? In the first instance, they offer a conceptual framework that teachers can use to: assess student ability, set appropriate goals, target instruction, monitor and report on student progress. Moreover, because the materials offer teachers a common framework and language for conveying information about students, enhanced communication between teaching professionals and interested stakeholders is another potential outcome.

Assessment along a continuum of ability is essential if the learning needs of all students are to be catered for. Unlike traditional subject domains, the interpersonal domain is a complex and conceptually indistinct area. As such, consistent assessment of this domain can be difficult for teachers. The questionnaire offers teachers a systematic way of assessing a set of interpersonal skills deemed to be important by their colleagues, researchers and theorists. Teachers can use the materials to aid their observation and

interpretation of social behaviour. Furthermore, because the questionnaire was constructed to reflect a large ability range, it is capable of capturing the beginning social capacity of even very low functioning students, a group frequently excluded from social measurement.

When ability is viewed within a developmental framework, the skill level of all students can be recognised. This richer appreciation of student ability underpins a developmental approach to teaching. Such an approach is essential if student engagement and therefore learning is to be optimised, because teaching that is directed either too far above or below a student's ability level is likely to lead to disengagement (Vygotsky, 1978). The questionnaire has been built from a competency model that focuses on what students are able to do. This is important because if teachers take a deficit approach to teaching and learning, focusing on what a student cannot do, they will not have an effective foundation for intervention. Effective teaching practice requires teachers to build on what a student knows, which is inferred from what a student can do (Griffin, 2007a).

Establishing what a student can currently do brings into focus the best starting point for teaching intervention. The materials developed from this study have been devised to support teachers in this process. For example, a student's current capacity as measured by the questionnaire enables their capacity to be matched to a level along the interpersonal continuum. The pertinent level highlights an area in which the student is currently functioning. Reference to the adjoining levels draws attention to both where a student has been and where they are likely to go. While teaching effort should be directed towards consolidation of a student's current skills and understanding, learning is the outcome of teaching strategies that stretch a student beyond their current capacity. This requires teachers to be looking towards the future prospects of their students.

The facility to predict the educational needs of students by referring to the interpersonal continuum means that teachers are able to prepare for expected student requirements. Similarly, the progress of students with additional needs can be monitored and reported against a common framework. Such commonality offers the prospect of a more integrated approach to the teaching of these students, with all the attendant benefits. In short, this research is seen as a first step towards a more systematic and evidenced-based approach to the assessment and instruction of students with additional learning needs. The materials offer teachers information about expected transitions in interpersonal development, for a subgroup of students who are not currently catered for by the curriculum set out for mainstream students. It is expected that the materials will help teachers to set developmentally appropriate goals for their students and target their teaching to what their students are ready to learn.

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