



Communication Skills

The Science of Resilience

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Definition

Velentzas and Broni (2014) define communication as “the act of conveying information for the purpose of creating a shared understanding” (p. 117). The exchange of thoughts and ideas can occur through gestures, signs, signals, speech, or writing (Velentzas & Broni, 2014). Velentzas and Broni (2014) explain that the act of communicating draws on several interpersonal and intrapersonal skills. Communication can also be defined as a process where one impresses the other by means of benefiting from certain symbols (Dökmen, 1989). Specifically, once individuals receive a message, they must determine the intent of the sender, the context of the message, and subsequently translate the information to develop a response (Velentzas & Broni, 2014).

Communication is a multifaceted phenomenon that has been conceptualized as having three intersecting domains: form, content, and use (Landa, 2005). Communication always occurs through the vehicle of some form, such as speech, gesture, sign language, written form, cartoons, facial expression, vocal tone, and so forth. The content of communication is the meaning that is conveyed. In linguistic communication, the meaning, or conceptual system, includes vocabulary and relational meaning as in the types of meaning relationships that are expressed (e.g. action, object, agent, action, possessive, location) as well as nonliteral language relationships as in figurative language, humor, and metaphor. The last major domain, the way that communication is used to accomplish something, involves the pragmatic system. Pragmatics can be divided into three main domains: (a) communicative intentions (e.g., requesting, calling, commenting, teasing, informing) that are expressed directly (“open the window”) or indirectly (“it is very hot in here”); (b) presupposition, involving the ability to make assumptions about a partner’s informational needs (so the appropriate amount of background information may be given), information processing abilities (so that the words and grammar used are appropriate), and social status (so that the appropriate degree of politeness is used); and (c) discourse management skills, involving the ability to use appropriate topic initiation, maintenance, and termination strategies (Landa, 2005).

Relationship to Resilience

The idea that good communication skills pay many dividends in people’s lives is a well accepted truism among communication researchers (Segrin & Flora, 2000). Communication skills have been found essential in several domains. Repetti et al.’s (2002) study reported that family communication, which includes positive and open dialog among family members, is associated with a reduction in a wide range of risk factors and promotes well-being for youth. In another study, it was noted that early development of communication skills contributes to positive youth development and increases youth self-efficacy and intentions to practice safe behaviors (Pick et al., 2007). In the workplace, a person with high communication competence

may be more likely to keep a healthy psychological state through effective communication with his or her supervisor and coworkers (He et al., 2019). Effective communication has been associated empirically with higher quality academic accomplishments, better professional and personal relationships, and increased physical wellbeing (National Research Council, 2012). Prior research highlights the importance of social skills, particularly skills relating to communication and respect for others (Newman, 2020). Being able to communicate effectively and demonstrate respect helps youth interact with other social agents, such as peers during sport activities and teachers at school (Newman, 2020). For instance, Lower-Hope et al. (2020) demonstrated that communication among athletes is predictive of athletic performance and team success (as cited in Newman, 2020). Communication skills are essential to learning, forming healthy relationships, creating a sense of community and educational and workplace success (Velentzas & Broni, 2014).

People with adequate social skills can effectively manage interactions with other people, often with positive outcomes (e.g., Burluson & Sampter, 1994). Conversely, people with poor social interactional skills tend to experience several mental health problems, many of which appear to have their origins in problematic interactions with other people, hence these problems are often characterized as “psychosocial” problems. The list of psychosocial problems that are negatively related to social skills is extensive and includes depression, loneliness, alcoholism, social anxiety, schizophrenia, and marital distress (e.g., Curran, 1977; Jones, Hobbs, & Hockenbury, 1982; Miller & Eisler, 1977). The link between disadvantage in the early years and language difficulties, which later affect school performance, has been highlighted by Locke et al. (2002) as cited in Gregory and Bryan (2010). In particular, persistent difficulty with language development has been linked with a greater than normal chance of the development of both mental health problems and criminal activities (Clegg et al., 2005; as cited in Gregory & Bryan, 2010). For example, one study showed that those with early language development problems were significantly at risk of teenage antisocial behaviour (Smart et al., 2003; as cited in Gregory & Bryan, 2010).

Children and Adolescents

Social skills form the foundation of youth development and are critical for the individual’s capacity to develop sustaining relationships over time (Cacioppo, 2002). Furthermore, children’s abilities to cooperate and communicate as well as display assertion and self-control in social contexts are key interpersonal skills that equip the youth to successfully transition into adulthood (Brownell, Ramani, & Zerwas, 2006).

Maree et al., (2018) observed that there is a close link between the acquisition of resilience and language development, where language development is seen as a process that helps children communicate their thoughts, opinions, and wishes to others. Language, and more specifically articulacy, supports children’s ability to express their ideas and emotions to others as well as their ability to process and understand information received from others.

Maree et al. (2018) noted that the key role of language in learning and in promoting resilience cannot be overstated. Early experiences in listening and talking provide the foundation for reading, writing, and expressing one's innermost feelings. What children learn through oral language provides a knowledge base for their reading and writing skills, which, in turn, enhances their articulation competencies. Learners without a robust literacy foundation may struggle not only academically but also in terms of becoming more resilient (Maree et al., 2018).

In a study conducted by Tagay and Karakelle (2014) on the predictive role of self-esteem and communication skills on resilience of Turkish vocational school students found that communication skills and self-esteem positively co-relate with personal strengths for pulling oneself together. They concluded that people with positive assessment of their communication skills are high in positive self-assessment as well. Positive assessment of an individual's own communication skills brings in a positive sense mindset. Similarly, Karairmak (2007), in his study on personality factors that affect resilience for earthquake survivors, reported that highly confident people are more optimistic and hopeful about life, and such hopeful people feel more positive emotions which lead to more resilience. Thus, it seems like people with high self-esteem tend to have better communication skills and effective relationships while those with low self-esteem lack confidence and effective communication skills (Van Thompson, 2014).

Parent-child Communication

According to a behavioral family-systems model, positive problem-solving and communication skills are viewed as critical components of healthy family functioning that can reduce conflict, promote positive family relationships, and increase coping with familial and external stressors for families with adolescents (Foster & Robin, 1998). Specifically, research has suggested that positive family communication is associated with reduced sexual risk taking in adolescence, improved health in diabetic adolescents, and enhanced academic motivation (Webb et al., 2007; Wysocki et al., 2008). On the contrary, poor communication skills have been associated with adolescent aggression, lower academic achievement, social incompetence, and suicidal behavior (Clark, Prior, & Kinsella, 2002; Reed & Dubow, 1997). In a study conducted on buffering the effects of violence in adolescents, it was reported that family communication and problem-solving skills served as a moderator of the violence exposure-psychological distress relation (LeBlanc et al., 2011). For both neighborhood and school violence exposure, having good communication and problem-solving skills were associated with less psychological distress, regardless of level of violence exposure. Additionally, when levels of violence exposure in the school or neighborhood were high, better communication and problem solving were associated with lower levels of psychological distress.

Parent-child communication is important for modeling appropriate responses to stressful circumstances and helping children develop their own effective strategies for coping with distress (Winslow, Sandler, & Wolchik, 2005). Baumrind's (1991) dimensions of parental

communication highlight responsiveness and control as two features of parental communication that are instrumental in shaping children's emotional and behavioral responses to interpersonal events. Research applying Baumrind's typology to examine adolescent markers of resilience in response to parental communication suggests that parental responsiveness is associated with increased emotion regulation among adolescent children, whereas parental control is associated with decreased emotion regulation and increased behavioral impulsivity (Haverfield & Theiss, 2017). Taken together, these perspectives suggest that parental communication that is supportive, instructive, and responsive helps children develop the skills necessary to confront and cope with challenging circumstances, whereas parental communication that is controlling or dismissive can encourage children to be reactive, volatile, or impulsive in the face of adversity (Hillaker, Brophy-Herb, Villarruel, & Haas, 2008).

Health Professionals

A lot of research has been performed on communication skills in health care, and more prominently, doctor-patient communication. Resilience levels among undergraduates across a range of health professions, including occupational therapy, physiotherapy, medicine, midwifery, and paramedicine are reported as being unsatisfactory, with factors such as time pressure, workload, multiple roles, and emotional issues having a deleterious effect on students' stress-coping abilities (de Witt et al., 2019; McCann et al., 2013; Tambag & Can, 2018). Learning to communicate effectively with co-workers within different settings and with patients from diverse backgrounds represents a challenging stage in the formation of students' professional self-identity. Brown et al.'s (2020) study on resilience in occupational therapy students yielded particularly useful insights into the benefits of an active-empathic listening style as a facilitator of vocational resilience factors. The finding that an analytical listening style was positively associated with resilience factors indicated that it may act as a stabilising influence, enabling students to manage and overcome the stresses and strains of university life by facilitating them to maintain a sense of perspective and empowering their stress management capabilities. The interpersonal communication variables, self-disclosure and social relaxation, were found to be significant predictors of resilience in the sample group.

Workplace Communication

There is ample literature on the importance of communication skills for individuals who seek to gain employment or advance in their career fields. For example, in an influential 1991 report, the U.S. Department of Labor Secretary's Commission on Achieving Necessary Skills (SCANS) identified interpersonal skills and basic communication skills, including speaking and listening, as two of eight essential competencies necessary for success in the workplace. Several other studies have found correlations between employees' communication skills and supervisors' perceptions of job performance (Maes et al., 1997; Scudder & Guinan, 1989). Oral communication is consistently identified both as the most important competency in evaluating entry-level job candidates (Maes et al., 1997) and as the most critical attribute for managerial

success (Seymour, 1989). Recruiters' top three criteria for evaluating candidates applying for management positions were strong interpersonal skills, communication skills, and team-oriented skills (Kane, 1993). Archer and Davidson (2008) listed communication skills in *Graduate Employability: The Views of Employers* as the highest-ranking attribute in the views of employers in London. Meaningful communication informs and educates employees at all levels and motivates them to support the strategy (Barrett, 2002).

Improving

Effective communication calls for the ability of self-expression and understanding others. Baltaş and Baltaş (1997) highlight the fact that it is imperative to reach some emotional maturity to establish well-functioning human relations and better communication. Effective communication also includes the ability to adapt, to be responsive, and to manage self-awareness during the process of talking and listening.

Social Media and Online Communication

Social media has the potential to become the primary means of communication among youth and it has been found to affect their communication skills (Huang, 2010). Popular social media outlets, such as Facebook and Twitter, have become mainstream methods for communication across the board (Huang, 2010). According to Displacement Hypothesis, time spent on social media replaces time spent on important communication experiences like face-to-face interaction (Huang, 2010). Consequently, a decline in existing face-to-face social interaction due to high social media has also been found to affect communication skills (Nie & Hillygus, 2002). However, there is evidence suggesting that lonely people with communication challenges tend to use social media more frequently than those without such challenges (Song, et.al., 2014). There are also certain benefits of social networking such as the sense of being understood and supported by peers (Selfhout, et al., 2009). Social networking sites have been linked with community formation and increased belongingness among adolescents (Quinn & Oldmeadow, 2012). According to Jabeen, Ahmed, Qazi, and Amir (2011), social media assists students improve communication skills since they acquire social confidence from social networking interaction that makes them feel more comfortable in new places. Online communication devices, according to Forkosh-Baruch and Hershkovitz (2012), can also improve business communication. Twitter, for instance, provides customers with updates regarding things customers know to be happening in a certain point of time. Therefore, it can be understood that although social media may positively affect communication skills and self-esteem, it can also create negative issues for interpersonal relationships (Fleming, 2011).

Since majority of communication between members and colleagues in today's working climate takes place online, Sandage (2018) compiled a list tips for effective online communication:

- Reread your e-mail before sending. This extra step will allow you to evaluate the tone of your message.
- Establish a time frame for online responses. Consider establishing a standard within your organization of responding to e-mails within 24 hours.
- Do not write an e-mail message when upset. Your mood can easily translate into an online communication. Let cool heads prevail.

Workplace Programs

Project-based learning (PjBL)

- A study (Musa et al., 2012) on inculcating soft skills in 21st century workplace acquired through undergoing project work found that students greatly benefit from PjBL in developing their communication skills especially in writing e-mails, executive summary and reports.

Narrative Paradigm Theory

- One communication technique that has drawn recent research interest for this process is that of storytelling, or Narrative Paradigm Theory (NPT). As a theory, the power and scope of NPT are derived from its ability to communicate and assess values, and the interpretation of those values summon human action (Cragan & Shields, 1998). In a study, Barker and Gower (2010) identified NPT as an effective cross-cultural communication tool that fills the diverse communication needs of today's heterogeneous workforce. They also present a model of storytelling to act as a complete organizational communication tool.

Three Method Approach

- Dolan (2016) wrote an article highlighting a strategy to brand oneself as a scientist/professional, and how to deliver a consistent message in a 'written', 'verbal' and 'virtual' manner. The approach focused on three key areas of communication: 1. Written (resume/CV, cover letters, research and teaching statements) 2. Verbal (interviewing responding to 'tell me about yourself/ research', and networking) and 3. Virtual (LinkedIn, website other social media (use caution and be professional)).

Graduate Students

Although interpersonal communication comprises several elements, Rubin & Martin (1992) identified three that are particularly important to graduate students working with an advisor: active listening, assertive self-expression, and receiving and responding to feedback. One-way graduate students can improve their relationship with an advisor is through the application of effective interpersonal communication, or an understanding of the dynamics and effective application of sending and receiving both verbal and nonverbal messages (Pritchett, 1993). Researchers have established that graduate students who were allowed to provide their

advisors feedback expressed greater satisfaction with their advising relationship, highlighting the importance of developing the central components of interpersonal communication, namely the capacity to receive and respond to feedback, in the graduate school setting (McCuen et al., 2009).

CareerWISE was designed to develop problem-solving skills for four challenges commonly experienced by women in STEM (Bernstein, 2011; Bernstein & Russo, 2008) difficulties with advisors, work-life balance issues, navigating climates that may be unfriendly to women, and unexpected delays and setbacks in research. CareerWISE features over 50 educational modules on topics such as problem-solving, thinking styles, stress triggers, perspective-taking, and interpersonal communication styles, along with almost 200 video accounts of graduate experiences and strategies employed by successful women in STEM fields (Dawson et al., 2015).

Couples

Communication occupies a central role in models of relationship deterioration, as intimate bonds are believed to remain strong to the extent that partners respond with sensitivity to one another (e.g., Reis & Patrick, 1996). Cross-sectional studies have consistently indicated that distressed couples display more negative communication behaviors and fewer positive communication behaviors during conflict resolution tasks than relatively satisfied couples (Bradbury & Karney, 2013). Behavioral theory extended these findings to posit that marital distress is a consequence of poor communication, arguing that “distress results from couples’ aversive and ineffectual response to conflict” (Koerner & Jacobson, 1994, p. 208). Several studies have examined the interactions and communication patterns of physically aggressive couples. Burman et al. (1993), for example, used a sequential analysis and had couples re-enact a typical conflict in their own home. Results indicated that physically aggressive couples employed more ineffective interaction patterns that contributed to escalation of aggression and displayed more hostile affect than did verbally aggressive or withdrawing couples.

Minnesota Couple Communication Program (MCCP) developed by Miller et al. (1975)

- The MCCP is a standardized program which uses didactic presentations, directed practice, and homework exercises to teach communication skills to couples. The program is usually taught in four 3-hour sessions to groups of 5-10 couples. It is an educational program in which partners practice using effective communication skills in dialogue around meaningful issues and receive immediate feedback from other participants on skills demonstrated and skills missing from their dialogue.

Disadvantaged Groups

It is well recognized that social disadvantage affects a child’s health and development, whether this relates to sickness, educational attainment, or communication skills (Gross 2008).

One way to help the development of communication skills is if those in the child's immediate environment foster phonological processing skills, drawing the child's attention to rhymes, alliteration etc. (Law, McBean & Rush, 2011). There is also some suggestion that the relationship between socioeconomic status and phonological processing may be sensitive to age, the relationship becoming stronger over time for high socio-economic status but not low socio-economic status groups (McDowell et al., 2007). There has been a longstanding difference of opinion deriving from some of the earliest debates about the relative roles of vocabulary and narrative skills (Labov, 1972). Some have suggested that narrative skill is the best predictor of outcomes for the children with specific language impairment (SLI) (Bishop & Edmundson 1987), others suggest that, while narrative is a significant predictor of preschool outcomes for children with poor language development associated with social disadvantage, oral vocabulary is a more useful predictor in children with SLI (Fazio et al., 1996). Studies that have specifically targeted children from socially-disadvantaged backgrounds with poor language skills have shown that standard, low-dosage speech and language interventions tend to have relatively little impact on the language skills of such children, especially if children experience both expressive and receptive language difficulties (Law, Kot & Barnett, 1999).

Milieu teaching includes a range of methods that is integrated into a child's natural environment (Goldstein, 2002) The early language skills of children with a range of developmental disorders, including autism, have been shown to be enhanced through milieu teaching methods (e.g., Yoder & McDuffie, 2006). In general, milieu approaches like these have been shown to be associated with increased ability to initiate communication in children who did not show this ability previously (Matson et al., 1993; Yoder & Warren, 2002). Milieu teaching approaches include:

- Training in everyday environments
- Creating activities that take place throughout the day rather than only at "therapy time"
- Including preferred toys and activities so that participation in activities is self-reinforcing
- Encouraging spontaneous communication by using "expectant waiting" and refraining from prompting
- Waiting for the child to initiate teaching episodes by gesturing or indicating interest in a desired object or activity
- Providing prompts and cues for expansion of the child's initiation
- Rewarding child responses with access to a desired object or activity

Doctor-patient Communication

A lot of research has focused on fostering doctor-patient communication. Learning to communicate effectively with co-workers within different settings and with patients from diverse backgrounds represents a challenging stage in the formation of students' professional self-identity (Brown et al., 2020). Research suggests that female occupational therapy students are more confident and motivated in overcoming personal challenges than their male

counterparts and use opportunities afforded by practice placements to develop core attributes of listening and communication in the health setting, such as clinical reasoning and relational skills (Seah et al., 2011).

The Calgary-Cambridge Referenced Observation Guides (Kurtz & Silverman, 1996)

- Provides a distillation of the literature of communication skills teaching in medicine in a form that provides practical help to facilitators, learners and programme directors. The guides have been used in a wide number of settings in medical education and have proved to be instrumental in the successful development of programmes to improve the communication skills of doctors.

Effective Communication in the COVID-19 Pandemic

In a recent paper, Ataguba and Ataguba (2020) argued that apart from changing how health services are delivered and how health systems respond to crisis, the COVID-19 pandemic has highlighted the significance of the social determinants of health (SDH), including crisis and risk communication in reducing disease burden. They stated that the effectiveness of SDH approaches to contain COVID-19 hinges on effective communication, including crisis and risk communication (Glik, 2007), a critical SDH. Communicating uncertainty and risks about the COVID-19 pandemic, within and between countries, may well have short and long-term economic impacts, affect morbidity, mortality, trust, and reputation through different pathways (WHO, 2020). It has also been argued that in many developing countries, effective communication should be 'pro-poor' and 'pro-vulnerable'. This means that crisis and risk communication strategies in many of these countries must take cognisance of already existing inequalities and socioeconomic fragilities in countries to be effective. Communication, especially effective crisis and risk communication, that is essential during pandemics (Glik, 2007), including the COVID-19 pandemic should be prominent in many developing countries to, among other things, reduce panic levels and the number of infections significantly (Ataguba, 2020). The risks associated with miscommunication during the COVID-19 pandemic are undoubtedly high, especially where trust and credibility, for instance, in authorities and governments are eroded (Ataguba & Ataguba, 2020). So, 'communication process must contain elements of trust, credibility, honesty, transparency, and accountability for the sources of information' (Glik, 2007; p.35).

Interventions

The Oral Language Supports Early Literacy Intervention (OLSEL; Snow et al., 2014)

Purpose

This study examined the impact of teacher professional development aimed at improving the capacity for primary teachers in disadvantaged schools to strengthen children's expressive and receptive oral language skills and early literacy success in the first two years of school.

Participants

An initial sample of 1,254 students were identified from eight socio-economic schools. Students were then divided into one of two streams: Stream A (n=602 students) comprised Prep 4 (n=278) and Grade 1 students (n=324) who completed baseline assessments of oral language and reading abilities, and Stream B (n=652 students) comprised students in Prep (n=120), Grade 1 (n=108) and Grade 2 (n=424) who underwent classroom-based reading assessment only.

The Intervention:

- Teachers and principals were exposed to a range of activities that can be incorporated into the early-years classroom, using Munro's (2007, 2011) "ICPALER" — Ideas — Conventions — Purposes — Ability to Learn — Expression and Reception Framework.
- ICPALER provides an explicit framework that teachers can use to promote a range of expressive and receptive language skills. It operates as a conceptual and pedagogical framework for teachers, and considers the underlying linguistic competencies (e.g., phonological, morphological, semantic) that a child has mastered, orienting teachers to specific classroom teaching strategies to scaffold students' acquisition of more sophisticated expressive and receptive language skills.
- Four language domains were targeted in the teacher PD: phonemic and phonological awareness, vocabulary knowledge, awareness and application of story grammar, and comprehension and use of longer and more complex sentences.
- OLSEL leaders in each research school also enrolled in a University of Melbourne Masters level subject (EDUC 460 735 Oral Language Learning: The Primary Years).
- Staff teams in each of the eight research schools worked to develop their plans to implement teaching initiatives focused on enhancing student literacy outcomes via a focus on two of the four aspects of oral language competence targeted by ICPALER.

Variables and Measurement Tools:

- Reading and oral language:
 - Reading skills were measured using the Reading Progress Test by Vincent, Crumpler, & de la Mare, 2004, which contains items examining four key domains: phonological awareness, print concepts, word knowledge, and cloze comprehension, represented via one summary standard score.

- Measures of oral language ability included the Picture Vocabulary and Syntactic Understanding sub-tests from the Test of Language Development: Primary – Fourth Edition (TOLD-4) by Newcomer & Hammill (2008); story grammar analysis (based on Snow & Powell, 2005), narrative analysis of story grammar by Price, Roberts, and Jackson (2006), and grammatical analysis of a narrative re-telling (T-units) — The Renfrew Language Scales Bus Story Test by Renfrew (1997), and selected sub-tests including syllable counting, blending, and segmentation tasks from the Sutherland Phonological Awareness Test-Revised (SPAT-R) by Neilson (2003). Tasks were selected for their psychometric rigour and their relative efficiency in terms of administration times. Personnel (SLPs and teachers) experienced in assessing early-years students completed all testing, after training, to ensure consistency in adherence to manual guidelines for administration.
- Oral narrative samples were audiotaped and transcribed for story grammar analysis using an omnibus system developed by Snow and Powell (2004) and a more detailed narrative coding system developed by Price et al. (2006), which is an adaptation of Stein and Glenn's (1979) story grammar framework. Narratives were assessed for the presence of the following elements — introduction, relationship between characters, initiating events, internal response, attempts/actions, and ending.
- A T-unit analysis was employed as a measure of expressive grammar.

The PrepSTART Program (Lennox, Westerveld, & Trembath, 2016)

Purpose

This study examined the effectiveness of a classroom-based intervention program aimed at improving the oral language and emergent literacy skills of students from low socio-economic, culturally diverse backgrounds within their first formal year of schooling or prep (Lennox, Westerveld, & Trembath, 2016, p. 192).

Participants

A total of 8 prep classes participated, from three schools, in the PrepSTART project, and two prep classes were the control group. The total number of students enrolled in the project was 216 students at Time 1 and 230 students at Time 2, however, only 137 students completed Time 1 and Time 2 assessments and were included in the analyses. The three schools that participated in the PrepSTART project were located in one of the most culturally diverse cities in Queensland. The decile area ranking for schools involved in this study was 5, indicating a relative disadvantage compared to neighbouring areas with a decile of 10.

The Intervention

The PrepSTART program was developed to target oral language skills of prep students from disadvantaged areas at school entry in an effort to provide these students with the foundational oral language and early literacy skills needed to set them up for successful reading

skills (Lennox, Westerveld, & Trembath, 2016, p. 193). PrepSTART is a book-based program delivered across a 24-week period by teachers and trained teacher aides. PrepSTART utilises scripted session plans to target code- and meaning-related skills in a systematic and explicit manner, using a set of guiding principles. The classes participating in PrepSTART received four, one-hour sessions per week over four days. Each session comprised of a 30-min whole class session led by the classroom teacher and a 30-min small group lesson led by a classroom teacher or teacher aide. Every two weeks, a new book was introduced. Following this, they formulated an oral retell and wrote this story, with support. The emphasis during the written activity was on phonological awareness skills and letter name knowledge. The second component focussed on meaning-related skills, which included vocabulary, story retell, and comprehension using repeated reads. The twelve target books were selected using a number of criteria including: cost, narrative structure, and length (Lennox, Westerveld, & Trembath, 2016, p. 195). Lastly, prior to entering the program, teachers and teacher aides participated in a one-hour training session that covered program logistics and included time to pursue sessions resources.

Variables and Measurement Tools:

- Phonological Awareness: This was assessed using a picture matching task where students were required to identify the picture that matched the target word's initial sounds when given a choice of three words and corresponding picture (Carson, Gillon, & Boustead, 2013; as cited in Lennox, Westerveld, & Trembath, 2016).
- Letter identification: Assess by students pointing to the target letter out of a choice of six.
- Oral narrative comprehension was calculated by asking students eight questions following their first exposure to the story. Students were asked to retell the story following a second reading, which was separated by a distractor task within the same session. Story retellings were assessed based on the inclusion of grammar and themes as well as overall coherence.
- Vocabulary was measured using the expressive vocabulary task (VOCAB).

The 'Teaching Children Talking' Project (Hobbs, L., 2006)

Purpose

The 'Teaching Children Talking' project was designed to facilitate improvement in the speech and language skills of children in mainstream nurseries and primary schools in the East Riding of Yorkshire including areas of low socio-economic status (SES) (Hobbs, 2006). In 2001, the regional education and health services, in response to the Report of the Joint Working Group (Law, Lindsay, Peacey et al., 2000), recognised the need to enhance the provision for local children with speech and language difficulties (SLD). The primary aim of the project was to develop and implement a course, delivering specialist training to teaching professionals in how to facilitate the learning of children with SLD in the Foundation Stage.

Participants

In 2001, when the project began, training was offered to all the schools in a partnership. In 2002, the project workers decided to offer the training only to Foundation Stage practitioners in the schools as it was felt that the project would be most effective with the youngest children. Between 2002 and 2004, the project workers worked with a further two partnerships. In these two partnerships, 53 teaching professionals participated in the project (16 nursery nurses, 13 teaching assistants and 24 teachers) from 21 schools. Each year, 20 children from the Foundation Stage in the partnership took part in the evaluation (Hobbs, 2006).

The Intervention

During the first term, the teaching professionals were trained to make observations and assessments and to group the children who had been identified by the initial screening process as having speech and language needs. The children were grouped according to their need for play, social and emotional experiences, or the development of listening and understanding. General strategies to improve the children's language skills were also introduced in the partnership schools and used with the whole class throughout the first term. During the second and third terms of the academic year, the nursery nurses and teaching assistants in the partnership schools were trained to deliver small-group activities targeted at the children's needs. These training sessions took place every six weeks (Hobbs, 2006).

Assessments

The CELF-Preschool UK (Wiig, Secord & Semel, 2000) and the Bus Story Test (Renfrew, 1997) were used to assess the children's speech and language skills at the beginning of the academic year when the project began.

The Interactive Media Package for Assessment of Communication and Critical Thinking (IMPACCT)

It is an online survey of communication skills with a section on critical thinking. At Time 1 a student registers a personal account on the survey site and provides the e-mail addresses of two people ("peers") who know the student well. Students then respond to an extensive survey in which they rate their own communication competence in a wide variety of contexts (Spitzberg, 2011). Also at Time 1, the peer raters are e-mailed an abbreviated version of the same survey, and they rate the student's communication skills in content domains parallel to the student's own self-rated competencies. At a Time 2, such as at the end of a given course or senior year, students sign back into their survey account and take the self-evaluation survey again (Spitzberg, 2011). The items of the survey are then scored as percentiles along a number of communication abilities, and the ratings of the two external peers nominated by the student are averaged and scaled along the same abilities as the student's self-ratings.

These procedures produce four assessment profiles for each student: (a) a self-rating, (b) a normative self-versus-everyone rating (i.e., everyone who has ever taken the survey), (c) a peers 3608-type peer rating, and (4) a change analysis involving a Time1-versus-Time2 rating (Spitzberg, 2011). After all assessments are completed, students can log into the site and receive their personal scores in a “profile” sheet that can be printed and included in a portfolio. The academic department can also retrieve systematic program-wide data on the communication abilities of its students, as well as the performance of its courses and students in the major (Spitzberg, 2011).

Assessment

Given that communication skills are mostly behavioral, the preferred method of assessment requires direct observation. The most authentic assessment is direct observation in real clinical practice (Vlueten et al., 2019). Communication skills can be assessed over longer periods of time such as in the multisource feedback (Lockyer, 2003), in which multiple assessors (the learner self, peers, coworkers, supervisors, patients) complete an online questionnaire. Feedback consists of aggregated assessor data. When a simulated setting is used for learning communication skills, the assessment may use simulated settings. The most well-known simulated assessment approach is the OSCE (Objective Structured Clinical Exam). Because self-assessment is strongly biased (Eva & Regehr, 2005) and self-directed learning needs scaffolding (Bruin & Van Gog, 2012) programmatic assessment promotes a form of directed self-assessment through coaching or mentoring. Mentoring has shown to have many positive effects in education (Driessen et al., 2012). In programmatic assessment learners are periodically required to self-analyze, based on the available data and discuss their progress and plans with a mentor. This might also be done for assessing communication. By having regular conversations about learner progress on communication with a trusted person, metacognitive insights will be promoted that again help to further develop one’s communication behavior (Vlueten et al., 2019). In this regard, learning communication skills should become part of learners’ lifelong personal development.

Tools to Assess Communication:

Interpersonal Communication Competence Scale (ICCS) (Rubin and Martin, 1994; Appendix A).

- The ICCS identifies competencies across 10 domains of interpersonal relationships: self-disclosure, empathy, social relaxation, assertiveness, interaction management, altercentricism, expressiveness, supportiveness, immediacy and environmental control (Rubin and Martin, 1994). Participants rate 30 items on a five-point Likert scale. The scale has established reliability and concurrent validity.

Communication Skills Evaluation Scale (CSES) (Korkut, 1996)

- The CSES, a five-point Likert type scale developed to understand how people assess their communication skills, consists of 25 items. The scale does not have reversed items (Korkut, 2005), and it was scored as 0-4 at the beginning (Korkut, 1996) and then in later studies it is scored as from never (1) to always (5) (Korkut, 1999).

Social Skills Rating System (SSRS; Gresham & Elliot, 1990)

- The SSRS (Gresham & Elliot, 1990) evaluates the social behaviors of children and adolescents. The system includes teacher, parent, and student questionnaire forms. The SSRS is intended for use with individuals ages 3 to 18. Caregivers report on their child's social skills across four domains—cooperation, assertion, responsibility, and self-control.

MAAS-Global (MG) (van Thiel et al., 1991; Appendix B)

- A commonly used instrument to assess doctor–patient communication skills is the MAAS-Global (MG) rating list (MG) (van Thiel et al. 1991). Research has shown this to be one of the better communication skills assessment tools (Boon & Stewart 1998). Its validity and reliability have been supported in several studies (van Thiel et al. 1991; van Nuland et al. 2007).

Science, Technology, Engineering, and Math Interpersonal Communication Skills Assessment Battery (STEM ICSAB; Wilkins et al., 2015; Appendix C)

- There are three instruments in the STEM ICSAB: The Interpersonal Communication Knowledge Assessment (Knowledge assessment), the Interpersonal Communication Coping Self-Efficacy Assessment (Coping Self-Efficacy assessment), and the Interpersonal Communication Skills Assessment (Skills assessment).

Other Notes

Oral language is the complex skill that is required for building meaningful relationships, sending and receiving information, and learning across all life context (Chiat & Roy, 2013; Snow et al., 2014) By the time children commence formal schooling, they must have the foundational oral language skills to retell experiences and stories, ask questions, comment, and explain their ideas to other children and adults (Boudreau, 2008; Chiat & Roy, 2013). Without these foundational oral language skills prior to school entry, students are ill-equipped for learning in the classroom in which strong emphasis is placed on reading instruction (Catts, Nielsen, Bridges, & Liu, 2014). Without foundational oral language skills, children have reduced opportunities for oral language development with subsequent negative impact on reading development (Missall et al., 2007; Snow et al., 2014).

Parental home literacy support encourages early code- and meaning-related emergent literacy skills to develop and provides children with the foundation for later formalised reading instruction (Froiland et al., 2013; Storch & Whitehurst, 2002). Parental involvement in home

literacy activities is not only related to early academic achievement, it also predicts long-term academic success. Froiland et al. (2013), for example, found that parent involvement prior to and during the first year of schooling had a significant positive impact on children's achievements in the areas of mathematics, reading and general knowledge.

The ability to use oral language effectively impacts the child's ability to learn in the classroom, to interact with their peers, and to develop literacy and numeracy skills – all skills of which are crucial for academic success (Snow et al., 2014, p. 495). In addition to supporting the transition to literacy in the early school years, oral language competence is the means by which children establish and maintain relationships with others, especially peers and teachers (Snow et al., 2014, p. 495). Research indicates that reduced oral language competence in the early years compromises psychosocial development and can predispose to high-prevalence mental health problems such as depression and anxiety, with problems persisting into adulthood (Schoon et al., 2010; as cited in Snow et al., 2014). Furthermore, language difficulties in childhood and adolescence are also linked with externalizing behaviour disorders (Snow & Powell, 2008, 2011; as cited in Snow 2014).

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Appendix A: Interpersonal Communication Competence Scale

Rubin and Martin (1994, p. 39)

FIGURE 2
Interpersonal Communication Competence Scale

INSTRUCTIONS: Here are some statements about how people interact with other people. For each statement, circle the response that best reflects YOUR communication with others. Be honest in your responses and reflect on your communication behavior very carefully.

If you **ALMOST ALWAYS** interact in this way, circle the 5.

If you communicate this way **OFTEN**, circle the 4.

If you behave in this way **SOMETIMES**, circle the 3.

If you act this way only **SELDOM**, circle the 2.

If you **ALMOST NEVER** behave in this way, circle 1.

SELF-DISCLOSURE (alpha = .63)

- * 1. I allow friends to see who I really am.
- 2. Other people know what I'm thinking.
- 3. I reveal how I feel to others.

EMPATHY (alpha = .49)

- * 4. I can put myself in others' shoes.
- 5. I don't know exactly what others are feeling. (R)
- 6. Other people think that I understand them.

SOCIAL RELAXATION (alpha = .63)

- * 7. I am comfortable in social situations.
- 8. I feel relaxed in small group gatherings.
- 9. I feel insecure in groups of strangers. (R)

ASSERTIVENESS (alpha = .72)

- * 10. When I've been wronged, I confront the person who wronged me.
- 11. I have trouble standing up for myself. (R)
- 12. I stand up for my rights.

ALTERCENTRISM (alpha = .49)

- * 13. My conversations are pretty one-sided (R)
- 14. I let others know that I understand what they say.
- 15. My mind wanders during conversations.

INTERACTION MANAGEMENT (alpha = .41)

- * 16. My conversations are characterized by smooth shifts from one topic to the next.
- 17. I take charge of conversations I'm in by negotiating what topics we talk about.
- 18. In conversations with friends, I perceive not only what they say but what they don't say.

EXPRESSIVENESS (alpha = .46)

- * 19. My friends can tell when I'm happy or sad.
- 20. It's difficult to find the right words to express myself. (R)
- 21. I express myself well verbally.

SUPPORTIVENESS (alpha = .43)

- * 22. My communication is usually descriptive, not evaluative.
- 23. I communicate with others as though they're equals.
- 24. Others would describe me as warm.

IMMEDIACY (alpha = .45)

- * 25. My friends truly believe that I care about them.
- 26. I try to look others in the eye when I speak with them.
- 27. I tell people when I feel close to them.

ENVIRONMENTAL CONTROL (alpha = .60)

- * 28. I accomplish my communication goals.
- 29. I can persuade others to my position.
- 30. I have trouble convincing others to do what I want them to do. (R)

Note 1. Items with asterisks are included in the Short-Form (SF) version. All items should be arranged randomly when administered.

Appendix B: MAAS – Global Rating List for Consultation Skills of Doctors

Van Thiel et al. (2000)

Response scale: 0=not present, 1=poor, 2=unsatisfactory, 3=doubtful, 4=satisfactory, 5=good, 6=excellent, n.a. = not applicable

Section 1: Communication Skills for Each Separate Phase

1. Introduction

- a. Giving the patient room to tell their story
- b. General orientation on the reason for the visit
- c. Asking about other reasons for visit

Criterion corresponding to the rating “excellent”: In the initial phase of the consultation the doctor orientates himself with regard to the reason for the visit by giving the patient room to talk about his complaints, problems or questions in his own words and, if necessary, by asking general questions to encourage the patient. General questions include questions about how long the patient has had the problem or complaint, how serious it is and what it means to the patient. The opening question is not rated. The doctor explores whether there are any other reasons for the patient’s visit. In rating this aspect the timing of this question is crucial: before starting detailed history-taking.

2. Follow-up Consultation

- a. Naming previous complaints, requests for help, and management plan
- b. Asking about adherence to management plan
- c. Asking about the course of the complaint

Criterion corresponding to the rating “excellent”: In a follow-up consultation the doctor makes the connection with the previous consultation by naming the previous complaints, requests for help and arrangements made. The doctor also finds out whether the patient has complied with the agreed management plan. The doctor also asks about the course of the complaint and the effect of the treatment or management strategy.

3. Request for Help

- a. Naming requests for help, wishes, or expectations
- b. Naming reasons that prompted the patient to come now
- c. Exploring request for help

Criterion corresponding to the rating “excellent”: The doctor names the patient's requests for help, wishes or expectations. In addition the doctor names the reason the patient states why he came for the visit. The doctor completes the request for help by checking whether all patient’s questions, wishes or expectations have been addressed.

4. Physical Examination

- a. Instructions to the patient
- b. Explanation of what is being done
- c. Treating the patient with care and respect

Criterion corresponding to the rating “excellent”: The doctor tells the patient before he performs the physical examination where it will take place, which parts of the body should be uncovered and what the patient should do (lie, sit, etc.). The doctor explains what the examination entails and explains his further actions during the examination if necessary. The doctor treats the patient with care and respect. He anticipates the patient's reactions to the examination, e.g. pain, and addresses them. When, for any reason, no physical examination is performed, n.a. should be circled.

5. Diagnosis

- a. Naming findings and diagnosis/ hypothesis
- b. Naming causes or the relation between findings and diagnosis
- c. Naming prognosis and expected course
- d. Asking for patient’s response

Criterion corresponding to the rating “excellent”: The doctor names the main findings from the history and physical examination, followed by a diagnosis or working hypothesis. In addition the doctor tells about the causes of the complaint or disorder, or the connection between findings and diagnosis. The doctor gives a concrete indication of the seriousness, the expected duration of the complaint and the course, with or without treatment. Finally, the doctor asks the patient to give his reaction to the findings, diagnosis, prognosis etc.

6. Management

- a. Shared decision-making, discussing alternatives, risks, and benefits
- b. Discussing feasibility and adherence
- c. Determining who will do what and when
- d. Asking for patient’s response

Criterion corresponding to the rating “excellent”: The doctor discusses the management strategy by letting the patient have his say by asking the patient’s opinion or by making an inviting pause. The risks and benefits of the proposed management strategy are also discussed. Depending on the nature of the complaint the doctor may need to discuss alternatives or indicate that there are no alternatives. The risks and benefits of the proposed management strategy and any alternative strategies are also discussed. The doctor talks about the feasibility of the proposed strategy taking into account the patient’s possibilities and the doctor verifies if and to what extent the patient will adhere to the proposed management strategy. The doctor makes concrete arrangements about further medical actions (who, what, when). Finally, the doctor asks about the patient’s reactions to the proposed course of action and arrangements.

7. Evaluation of Consultation

- a. General question
- b. Responding to requests for help
- c. Perspective for the time being

Criterion corresponding to the rating “excellent”: At the end of the consultation the doctor asks a general question about what the patient thinks or feels at this moment. The question need not concern any specific aspect of the consultation. At the end of the consultation the doctor checks whether the patient’s requests for help have been adequately addressed. The doctor checks whether the patient has been offered perspective for the time being.

Section 2: General Communication Skills

8. Exploration

- a. Exploring requests for help, wishes, or expectations
- b. Exploring the patient’s response to information given within patient’s frame of reference
- c. Responding to nonverbal behaviour and cues

Criterion corresponding to the rating “excellent”: The doctor explores the patient’s requests for help, wishes or expectations by asking questions. This should be done in an inviting manner. The doctor explores the patient’s reaction to the information given. This applies in particular to the phases "diagnosis" and "management". Exploration takes place within the patient’s frame of reference. While exploring the doctor responds to nonverbal behaviour and cues.

9. Emotions

- a. Asking about/ exploring feelings
- b. Reflecting feelings (including nature and intensity) sufficiently throughout the entire consultation

Criterion corresponding to the rating “excellent”: The doctor asks about the patient’s feelings or he asks questions when the patient shows emotions. The doctor reflects the feelings that the patient shows and expresses appropriately, with respect to both their nature and intensity. The doctor pays attention to the feelings throughout the consultation by asking questions and reflecting feelings sufficiently and with an appropriate balance of time, i.e. not too much and not too little.

10. Information Giving

- a. Announcing information
- b. Categorizing in small quantities and using concrete explanations
- c. Understandable language
- d. Asking whether the patient understands

Criterion corresponding to the rating “excellent”: The doctor announces to the patient that he is going to give information about a subject and explains which categories will be dealt with. The information is given in small quantities and the doctor explains details concretely. The

doctor uses language that is easy to understand for this particular patient. The doctor checks whether the patient has understood the information by asking questions.

11. Summarizations

- a. Content is current, complete, and concise
- b. Rephrased and checking sufficiently throughout the entire consultation

Criterion corresponding to the rating “excellent”: The doctor demonstrates throughout the consultation that he has heard what the patient has to say through sufficient and well-balanced summarizations, phrases concisely, in his own words, content-wise correct, and he offers the patient room to respond (pause, questioning intonation, asking question).

12. Structuring

- a. Logical sequence of phases
- b. Balanced division of time
- c. Announcing (history taking, examination, other phases)

13. Empathy

- a. Concerned, inviting, and sincerely emphatic in intonation, gesture, and eye contact
- b. Expressing empathy in brief verbal responses

Section 3: Medical Aspects

14. History-taking

- This item can be used to rate somatic history and psychosocial history, if applicable. Rate according to professional guidelines if they are available. Otherwise rate to the best of your ability.
- Comments: If a psychosocial history is appropriate, but not obtained, the rating should be lower, regardless of the quality of the somatic history.

15. Physical Examination

- This item can be used to rate if applicable:
 - Physical examination done by the doctor
 - Additional tests done by the doctor during the consultation
- Rate according to professional guidelines if they are available. Otherwise rate to the best of your ability.
- Comments: Physical examination consists of the examination and additional investigations carried out during the consultation. Additional investigations that are planned after the consultation are rated under "management" (item 17). Physical examination that is not recommended in the guidelines is considered superfluous and should result in a lower rating. If data obtained in the history or in previous consultations indicate that a physical examination is not necessary, raters should circle “n.a.”.

16. Diagnosis

- This item can be used to rate diagnosis or working hypothesis. Rate according to professional guidelines if they are available. Otherwise rate to the best of your ability.
- Comments: The observer rates the medical quality of the "diagnosis" phase using the information that the doctor gives to the patient. This concerns the phase when the doctor makes his diagnosis. The doctor decides which diagnosis or working hypothesis to use on the basis of the findings from the history and the physical examination, or he decides that he does not know. All this takes place inside the doctor's head and it is only shown to the observer and the patient when the doctor tells his findings, considerations, diagnosis, causes, prognosis and expected course of disease. This item is concerned with the medical content of the diagnosis.

17. Management – for this item, observers should rate the following aspects if applicable:

- a. Wait and see
 - b. Education
 - c. Treatment
 - d. Medication
 - e. Additional test
 - f. Referral
- Rate according to professional guidelines if they are available. Otherwise rate to the best of your ability.
 - Comments: Medication and other treatment strategies fall under "management". When appropriate, education is also a part of "management". Any referrals and additional tests are included in the rating. If referral is indicated (by consulting guidelines!) this will lead to a higher rating. An inappropriate referral, i.e. referring the patient when this is not indicated, leads to a lower rating. The patient's contribution may affect the choice of management strategy. The observer should take this into account when the doctor deviates from the management proposed in guidelines. If the doctor allows interpersonal factors to interfere with his adherence to consensus in management decisions, such as in cases where the doctor tries to avoid a conflict with the patient, this should have a negative effect on the rating.

Appendix C: STEM Interpersonal Communication Skills Assessment Battery

Wilkins et al. (2015)

Psychometric Properties of the Interpersonal Communication Knowledge Assessment

Item	Factor loading	<i>M</i>	<i>SD</i>
1. Check the accuracy of my interpretation	.56	4.65	.74
2. Plan a well-crafted message	.70	4.85	.88
3. Express my views in a way that would improve the likelihood of getting my desired outcome	.68	4.83	.82
4. Use past experiences as a way to measure the feedback received	.57	4.87	.80
5. Present myself in the manner in which I want to be perceived	.60	4.75	.88
6. Behave in a manner that facilitates good interpersonal communication	.59	5.01	.75
7. Identify the objective of my message	.59	5.06	.71
8. Check to ensure that I have understood the speaker's point of view	.55	4.95	.82
9. Identify the desired outcome(s) of my communication interaction	.63	4.95	.74
10. Focus my attention on the feedback being received	.62	4.76	.80
11. Assess if the feedback received fits with my perception	.65	4.65	.84
12. Ask for clarification when I am unsure about the feedback received	.51	4.90	.94
13. Use the feedback received as a learning tool	.60	4.97	.77
14. Acknowledge feedback while expressing my views confidently	.64	4.68	.83
15. Interpret feedback I have received	.64	4.75	.75
16. Express my personal needs while still conveying professionalism	.69	4.59	.99
17. Stay focused on my needs while expressing myself	.74	4.50	.88

18. Be consistent in what I am saying and how am saying it	.67	4.65	.88
19. Consider my intentions for communicating a certain message	.63	4.91	.73
20. Recognize the main underlying point of a speaker's message	.60	4.85	.83

Note. Respondents were instructed to indicate their level of agreement with each item using the following prompt: "When communicating with others, I know how to " Item response options range from (1) strongly disagree to (6) strongly agree, with no midpoint.

Psychometric Properties of the Interpersonal Communication Coping Self-Efficacy Assessment

Item	Factor		
	loading	<i>M</i>	<i>SD</i>
1. Pay attention to the main point of a speaker's message even if s/he is being confrontational	.54	7.36	1.52
2. Communicate my discomfort in answering someone's question even if I feel pressure to do so	.66	6.50	1.93
3. Communicate my expectations even if the other person perceives me as unreasonable	.69	6.92	1.93
4. Acknowledge the feedback received and advance the discussion even if the speaker wants to dwell on the feedback	.69	7.31	1.63
5. Share my perspective with colleagues even if they attempt to put my ideas down	.77	6.80	1.97
6. Confidently discuss my ideas even if I recently received negative feedback from this person	.80	6.50	1.90
7. Articulate a clear reason for my request even if the listener appears disinterested in meeting my needs	.76	7.39	1.77
8. Bring attention to my needs even if I feel put down	.85	6.54	1.90
9. Challenge feedback that doesn't fit even if I feel intimidated by the other person	.77	6.52	2.05

10. Bring attention to my needs even if I expect an unwanted response	.78	6.91	1.85
11. Stand up for myself even if the other person seems intimidating	.82	7.09	2.00
12. Maintain consistency in what I am saying and how I am saying it even if I am having a difficult conversation	.70	7.21	2.00

Note. The instructions for this scale are “Please indicate your level of confidence in your ability to do each of the following successfully.” Item response options range from 1 (no confidence) to 10 (complete confidence), with no midpoint.

Interpersonal Communication Skills Assessment

Scenarios:

1. Suzanne sent her advisor, Dr. Sanju, a draft of her dissertation proposal several weeks ago and has yet to receive feedback on her work. If she does not get some feedback soon, she will have to post- pone her scheduled dissertation defense and possibly graduate the following semester. She has decided to drop by his office to communicate the importance of receiving his feedback. For each of the following opening expressions, indicate how likely it is to assist Suzanne in getting his feedback promptly.
 - a. “You know that I need to defend my dissertation before I can graduate yet still you haven’t sent me any feedback on the last draft of my proposal.”
 - b. “I understand that you have competing demands on your time. I really value your opinions, though, and would appreciate it if you could offer some feedback on my dissertation.”
 - c. “I know that you’ve been busy, but I am worried about graduating on time because you still haven’t given me any feedback on my dissertation.”

2. Elisabeth met with her advisor, Dr. Sampson, a week ago and received some feedback about her academic performance over the last year. At the time, he stated that “you made excellent progress in your classes and in your statistics course in particular. However, when compared to your colleagues, I think that your research abilities are subpar.” She responded by stating that she would take some time to think about his feedback and discuss it further in their next weekly meeting. For each of the following statements that Elisabeth could potentially make to Dr. Sampson, indicate how likely it is to assist her in getting clarification from her advisor about his feedback in this week’s weekly meeting.
 - a. “Can you please tell me more about the qualities that you are looking for in a researcher?”
 - b. “Thank you for sharing your thoughts about my research capabilities. However, I am not sure I am in agreement with your feedback. Please offer some examples of why you think that way?”
 - c. “I hear your feedback Dr. Sampson, I am not sure I agree though.”

3. Dr. Phillips, Sandra's advisor, asked her to meet with him regarding the method she used to analyze the data from their research project. Sandra feels belittled by his feedback and inwardly disagrees with him. For each of the following actions, indicate how likely it is to assist Sandra in being perceived as professional while receiving Dr. Phillips' feedback.
 - a. "Interrupt him and state your opinion when you disagree with his feedback."
 - b. "Ask him to elaborate when you are unclear about specific parts of his feedback."
 - c. "Nonverbally display your dissatisfaction with his feedback."

4. Since Jane began working with Dr. Samuel, she often feels a bit reluctant to express her opinions in their team meetings. She is not sure if her opinions are viewed favorably. Jane has decided to meet with Dr. Samuel individually to discuss how she could improve on her contribution to the group. For each of the following ways Jane could address this with Dr. Samuel, indicate how likely it is to assist her in getting his recommendations on ways she could improve.
 - a. "I would like to discuss with you how I can better contribute to our research team meetings."
 - b. "I would really appreciate it if my views were at least acknowledged in our team meetings. How can I achieve that?"
 - c. "I feel like you hardly acknowledge me in the team meetings, and I think that's unfair."



For more information about R2 or to discover how you can bring the program to your organization, business or educational setting, please contact us.

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