Steps for Implementation: PMII for Elementary, Middle, and High School

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PMII for learners in elementary, middle, and high school includes the following steps.

Step 1. Selecting Peers

The first step in implementing peer social networks is to initially select peers who will provide social support to the focal student. Selected peers should:

- exhibit good social skills, language, and be well-liked by peers;
- have similar schedules or academic groupings as the focal child; and
- express a willingness to participate.

Teachers also should obtain parent permission, particularly if organized social events take place after school. At least six peers should be selected by teachers to participate so that peer/focal student dyads can be rotated. Teachers should plan to include one to two peers in the peer social network activities for a minimum of three to four months to promote acquisition of skills. After this time period, additional peers can be included to promote generalization of skills (Carter & Kennedy, 2006; Thiemann, 2007; Utley, Mortweet, & Greenwood, 1997).

Step 2. Training Peers

The specific content of the peer training sessions will vary according to the age of the students. The specific activities for training elementary, middle school, and high school students are provided below.

Elementary school. The initial training sessions with elementary school students should take place in an area of the classroom that is quiet and free from distraction. During the training sessions, peers learn specific behaviors that are used to facilitate social interactions during structured activities. They include the following:

- initiating interactions,
- responding to initiations,
- keeping an interaction going,
- starting and engaging in conversations (e.g., greetings, topics),
- giving and accepting compliments,
- taking turns and sharing,

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- helping others and asking for help, and
- including others in activities (Kamps et al., 1992; Thiemann, 2007; Thiemann & Goldstein, 2001).

Appreciating individual differences. At the beginning of the training session, the adult trainer teaches the pre-selected peers to recognize and appreciate individual differences. For example, teachers engage the peers in a brief discussion about individual differences and similarities that exist between peers and the focal student. At this time, the teacher also provides descriptions of the focal students including their level of communication, likes, and dislikes.

Identifying preferred activities of focal student. Teachers then engage peers in a discussion about the specific games and activities that the focal student enjoys. Preferred activities will most likely become the activities in which peer support will be provided. Teachers can use a dry-erase board or chart paper to record a list of these preferred activities as well as the possible social interactions that could occur between the peers and the focal student.

Generating scripts for interactions with focal student. Teachers should encourage peers to generate words or phrases that they can say during these preferred activities that match the target skills (responding to peers, maintaining conversations and interactions with peers, initiating interactions) for focal students. These phrases are written on a skill sheet with a label of the target skill at the top, and a picture of two students with topic bubbles. The phrases or words are written in the topic bubbles. A list of prompts and models that might be necessary to promote social interactions also can be generated by teachers and peers at this time (Sasso et al., 1998). The target skill sheets can be placed in the activity area to provide a "script" for the interaction and provides peers and the focal student with information about what to do, what to say, and how to respond. Scripts can be particularly helpful with school-aged students because they help them organize social information while also providing continuous access to ideas, comments, and questions related to the activity.

After the initial brainstorming session, peers are taught to "look, wait, and listen." This approach allows the focal student time to initiate and/or respond to a peer. The teacher then role plays with a peer to provide an example of how to use the skill in an activity. Peers also have the opportunity to role play with one another to further practice the use of the target skill. Following each role play, the teacher provides feedback and reinforcement for participating in the activity (Garrison-Harrell, Kamps, & Kravits, 1997; Haring & Breen, 1992; Pierce & Schreibman, 1995; Thiemann, 2007).

Middle and high school. Because middle and high school students do not remain in one classroom for the entire day and they often have different teachers for specific subjects, a special educator may be the most appropriate person to implement the peer support network interventions. Training middle and high school students involves less direct instruction by the special educator and more active participation in the development of peer network interventions. During initial training sessions, peers are provided with (1) the goals for this intervention and the rationale for their involvement in the intervention activities (to help focal student respond to peers, maintain conversations and interactions with peers, and initiate interactions with peers); (2) an overview of what is expected of them during their interactions with the focal student; and

Peer-Mediated Instruction and Intervention: Steps for Implementation (EMH) National Professional Development Center on ASD 10/2010

(3) information about how students with ASD communicate, interact with their environment, and learn (Carter & Kennedy, 2006). The special educator also may provide descriptions of the focal student's likes and dislikes.

Next, special educators describe basic strategies peers can use to support the focal student during social interactions. These strategies include:

- providing frequent, positive feedback;
- modeling contextually relevant communication skills; and
- facilitating interactions with other peers (Carter & Kennedy, 2006).

Special educators should model the use of these strategies with peers at this time. Peers also can role play with one another to practice skills.

At the conclusion of the activity, the special educator and peers discuss when and where the focal student may need support from peers to engage in social exchanges with others. For instance, peers write down their daily class schedules and match them with the focal student's schedule. A schedule of interactions then is developed based upon the times the focal student needs additional support and when one of the peers is available to provide this support. The special educator and peers also identify methods for prompting and reinforcing the focal student's social interactions. Peers then are provided with a notebook that they will use to record anecdotal information following each intervention activity. The information that peers include in their notebooks will be used during weekly meetings to problem-solve how to further support the focal student as well as ways in which the intervention can be improved. The initial training may occur over two to four class periods, depending on the support needs of the focal student as well as the school activities that will serve as the context for implementing the interventions (Carter & Kennedy, 2006; Haring & Breen, 1992).

Step 3. Supporting Peers

Another important step in the implementation process is to provide ongoing support and feedback to peers. Similar to the training component of the intervention, follow-up support for peers will vary according to the age of the students. The following discussion describes how teachers and other professionals can support peers at different ages.

Elementary school. After the initial training sessions, specific strategies (providing frequent, positive feedback; modeling contextually relevant communication skills; and facilitating interactions with other peers) that can be used to support the focal student during social interactions are modeled during a planned activity involving peers and the focal student. Teachers also make any individualized curricular and instructional adaptations that are needed for the focal student to participate fully. For example, the teacher may provide the focal student with a "script" that was developed by peers prior to the intervention activity. As peers become more proficient at supporting the focal student during daily activities, teachers decrease their level of involvement. This allows peers to assume the primary role of providing social support to the focal student (e.g., clarifying instructions, offering choices, supporting participation at lunch

Peer-Mediated Instruction and Intervention: Steps for Implementation (EMH) National Professional Development Center on ASD 10/2010

or recess). Peers may continue to need occasional prompting, however, to interact with the focal student during peer social network activities (Carter & Hughes, 2007).

Middle and high school. Weekly problem-solving meetings are the primary ways in which special educators provide ongoing support and feedback to peers. Classroom teachers also may be included if the peer support interventions are being implemented during their class period. The purpose of these activities is to encourage peer involvement and input as well as minimize the special educator's role in the scheduling and identification of interaction strategies. Special educators conduct the sessions; however, peers are actively involved through open discussion, problem-solving, and sharing of anecdotal information from their notebooks (Carter & Hughes, 2007). A standard format is recommended to help organize each session and includes the following:

- assess the previous week's interactions through an open discussion among the special educator, teachers, and peers;
- modify the interaction schedule as needed by peer written and spoken feedback;
- identify target skills for focal student that will be addressed;
- discuss strategies that can be used by peers to facilitate social interactions between focal student and peers;
- role play or model strategies as needed;
- assess informally the satisfaction of peers regarding the network meetings and responsibilities; and
- reinforce peers' participation through verbal praise, letters home, and occasional group social activities such as having pizza for lunch (Haring & Breen, 1992).

Step 4. Implementing in Classroom Settings and Throughout the Day

When planning and implementing peer-mediated interactions with older children and adolescents, several factors should be addressed to promote the success of peer social networks. They include the following:

- creating a supportive social environment,
- providing classroom learning opportunities,
- monitoring social interactions, and
- using prompts and reinforcement.

Supportive social environment. When implementing a peer social network approach in classrooms, teachers and other practitioners should focus on creating a social environment that supports peer to peer interactions. For example, teachers should keep peer social groups small (e.g., one to two peers), but continually rotate the peers included in the activities to promote generalization of skills. Seating trained peers next to the focal student during whole-class and small group activities increases the likelihood that interactions with peers will occur.

Learning opportunities. Peer social networking activities can occur throughout the school day; however, some activities are more likely to support positive social interactions than others. For

example, ongoing classroom activities that are particularly conducive to supporting social interactions include the following:

- small academic groups such as math and reading;
- class centers such as calendar and money activities, computers, puzzles;
- special areas such as physical education and library;
- card games such as memory and matching games, Go Fish, Uno; and
- board games such as Trouble, Kerplunk, and Don't Break the Ice (Kamps et al., 1997; Thiemann, 2007).

Lunch also is an appropriate time to incorporate peer social networks. However, specific materials and supports must be provided to the focal student and peers in order to successfully facilitate interactions. For example, peers can help teachers generate topic cards that they can use to start conversations with the focal student. Topics should be age-appropriate and focused on the interests of the focal student to promote optimal interactions. Other materials that can be used during lunch time to increase peer social interactions include the following:

- open-ended topic starters,
- funny photos or pictures,
- magazines,
- restaurant guides,
- photos taken by peers to use as topic starters, and
- school subject/events topic cards (Thiemann, 2007).

Peer social networks also can be used to promote social interactions at recess. Activities such as four square, basketball, Monkey in the Middle, Frisbee, and map games are very appropriate activities for supporting peer interactions.

Monitoring social interactions. As peers assume the responsibility of providing ongoing support to the focal student, teachers should frequently monitor interactions and provide periodic feedback and assistance. This support will ensure that the adaptations, assistance, and interactions taking place are appropriate and relevant for the focal student. Feedback should be provided to peers at the end of each activity, class period, or during weekly problem-solving meetings.

Use of prompts and reinforcement. The use of prompts and reinforcement is integral to the success of peer social networks and promotes sustainable social interactions across time. With the peer social network approach, prompting and reinforcement are primarily provided by peers to the student with ASD. As such, teachers must focus on teaching peers how and when to deliver specific prompts and reinforcement to the focal student when they are needed. For example, teachers instruct peers to observe focal students during an activity and provide the necessary prompts if they do not interact with a peer or respond to another student's social initiations.

During peer social network activities, prompting may involve cueing the focal student with general verbal prompts while pointing to a written-text or picture cue (e.g., "Mary, what can you say?"). Written-text and picture cue cards prompt social behavior by displaying pictures of students interacting through the use of controlled, short phrases written at the focal student's reading and vocabulary level. The cue cards are functional, age-appropriate, and directly related to target skill for each activity. These prompts are particularly useful with this age group because they are portable and are available to peers throughout the activity.

As the focal student is better able to interact with others, teachers direct peers to withdraw their use of prompts. This withdrawal of prompts is done under the direct supervision of the teacher or special educator. If the focal student is engaging in relatively few social interactions, practitioners should instruct peers to temporarily increase the use of prompting and reinforcement to ensure that social interactions are occurring with a high level of frequency. Gradual withdrawal of prompts and reinforcement will allow practitioners to periodically assess the progress of individual children.

Step 5. Extending Initiations across the Day

The final phase of the implementation process is to extend peer social networks across the day so that students with ASD can begin to generalize skills. Teachers should focus on extending peer social network activities across the day in activities that

- occur in natural settings (e.g., recess, lunch, centers, games),
- occur in a minimum of two to three different routines each day,
- contain a choice of two activities during each session (both peers and the learners with ASD should be given opportunities to choose an activity each day),
- use five to eight games rotated every three to four months to promote generalization,
- keep the same group of four to six trained peers to promote interpersonal connections and friendships,
- are social in nature, and
- last a minimum of 10 minutes (Kamps et al., 1997; Thiemann, 2007).

The sample activity planning form helps teachers and special educators organize the focal student's daily schedule and identifies where additional support is needed by the student to engage in social interactions with peers.