Cooperative Learning

Five elements for successful cooperative learning.

- encouraging learners to interact and work together
- positive interdependence – group reward **
- preparation of learners’ interpersonal and small group skills
- reflection on and evaluation of group processing; and
- individual accountability.**

The structure of the group learning experience is central to the learning outcome.

Johnson and Johnson (1991; 1998); Slavin (1995)

Peer Coaching and Clinical Practice: Current trends and knowledge

Professor Richard Ladyshewsky
Curtin Graduate School of Business
Curtin University, Perth, WA, Australia
Rick.ladyshewsky@gsb.curtin.edu.au

Peer Learning

• Cooperative Learning

• Peer Tutoring

• Peer Coaching

Jig Saw – Graduation Cake

Cake
Filling
Icing
Decorations

Positive Interdependence/Group Reward and Individual Accountability
Cooperative Learning

- Clinical Instructor / Professor organises the learning team
- Heterogeneous groupings.
- Task or problem is broken up into sub-components.
- Collective group effort enables the team to complete the task.

Patient Intervention On Wards Case Presentation

- Individual Accountability
  - Overview of Medical Record – Summarises Key Findings
  - History of Patient
  - Physical Examination
  - Client Management

- Student Integration Time
  - Case Presentation

- Positive Interdependence
  - Questions Directed to A, B, C, D on all aspects of case each expected to answer any component.

- Group Reward – Grade, Feedback, Clinic Evaluation Form, Chocolate

Clinical Skills Development

Manual Therapy – Wrist Mobilisations

Colles Fracture

- Learning between pairs of students.
- More able tutoring a less able
- Higher Status
- Emulates traditional teacher-student relationship
- Provides feedback
- Narrower difference in authority and expertise = positively influence
- Tutors require training

- Senior Students Teaching Junior Students
- More capable partner teaching less capable partner

- Student run clinical skills laboratories
Peer Coaching

- Student Peers observing each other and providing consultative assistance and non-evaluative feedback. ***
- Equal status and mutuality (open window)

Coaching Techniques

- Open ended questions
- Active Listening
- Silence
- Paraphrasing
- Summarizing
- Initiating Action

Power - Distance

Horizontal (Peer) Coaching: Status Equal

Example coaching questions (Zeus and Skiffington, 2002)

<table>
<thead>
<tr>
<th>How</th>
<th>What</th>
<th>When</th>
<th>Where</th>
<th>Why</th>
</tr>
</thead>
<tbody>
<tr>
<td>How did you think/feel/act?</td>
<td>What happened?</td>
<td>When did it start?</td>
<td>Where does it happen?</td>
<td>Why did you do that?</td>
</tr>
<tr>
<td>How did that come about?</td>
<td>What makes you think that?</td>
<td>When did that first occur?</td>
<td>Where can we start to make a change?</td>
<td>Why do you think that happened?</td>
</tr>
<tr>
<td>How have you coped in the past?</td>
<td>What might you do differently next time?</td>
<td>When did you realise?</td>
<td>Where did it go all wrong?</td>
<td>Why do you think they responded that way?</td>
</tr>
<tr>
<td>How does that fit in?</td>
<td>What was important about that?</td>
<td>When did you decide?</td>
<td>Where will that get you?</td>
<td>Why is this happening?</td>
</tr>
<tr>
<td>What did you learn from that?</td>
<td>When will that happen?</td>
<td></td>
<td>Where do you see yourself in ...?</td>
<td></td>
</tr>
</tbody>
</table>

• Why questioning can sometimes sound interrogatory so use these types of questions cautiously.
• They may lead to defensiveness from the coachee and create argument between the parties.

Changing Feedback to Coaching

Think of something you have said to a student that is ‘traditional feedback’
  – e.g. “you should have done it this way?”
  – “You did that very well.”
That could be converted into a ‘coaching statement’?

Evidence Base for Peer Coaching

- **Cognitive Development Theory** (Vygotsky, 1986)
  - Peer interaction promotes cognitive development by creating critical cognitive conflict or structured controversy – which leads to higher achievement levels – zone of proximal development

- **Social Learning Theory** (Bandura, 1997).
  - Observing and modeling the behaviors, attitudes, and emotional reactions of others.
Evidence Base for Peer Coaching

- Specific challenging goals lead to better performance...
- Feedback/Information on goal attainment enhances the process...
- Goal accomplishment and performance should be rewarded
- Individuals need to develop action plans
- Climate must be supportive

Goal Setting Theory (Locke, 1996)

Structured Coaching Model (Grant, 2003; Kolb, D. (1984))

- Coachee Defines Issue(s)
- Set Goal/Objective
- Develop Action Plan
- Act
- Monitor
- Evaluate
- Celebrate

Change: Apply

Reflective Practice – Learning Journals

Work Integrated Learning and Peer Coaching

Physical Therapy Students – History Taking – Physical Examination – Management
Simulated Patient – Individual and Coaching Pairs
25% of course grade: examination score averaged for pairs – group reward/individual accountability

Dr. R. Ladyshewsky
**Teaching Clinical Practice Skills**


---

**Model of Competency** (Quinn et al, 2003)

- **Competent** – complexity of tasks appreciated, recognise specific cues, action more focused, rules are assumed, personal rules of thumb emerge, intuition. – schema start to become well grounded, drive decision making

- **Advanced Beginner** – experience becomes critical, real situations allow you to test out facts and rules. Patterns emerge and you recognise factors not in the rules (eg. norms, culture, values)

- **Novice** – facts and rules drive decisions – inflexible – work from core knowledge
Entry Level Competency

Case Mix – What 5 or 6 Cases do Clinicians Treat Most of the Time in their Specialty Area

e.g. Outpatient Orthopaedics
1. Lumbar Back Pain – Postural Osteoarthritic
2. Cervical Neck Pain - Whiplash
3. Rotator Cuff Tendinitis
4. Patellofemoral Pain Syndrome
5. Lateral Collateral Ligament Sprain Ankle
6. Tennis/Golfer Elbow

Focus Peer Coaching Efforts Here
Transfer of Training and Readiness to Practice
Multiple Encounters to Promote Pattern Recognition

Hypothetico-Deductive Reasoning Model

Hypothesis Generation
Shoulder Pain
1. AC Sprain
2. Bursitis
3. RC Strain 1
4. RC Strain 2
5. C Spine
6. Bicipital Tendinitis
7. Hypermobility Subluxation
8. Adhesive Capsulitis

Reasoning Errors - PC

Forward Reasoning - Pattern Recognition

Problem Clarification
Growing understanding of the problem

Data Interpretation
against existing knowledge

Cue Acquisition

Role of Clinical Instructor

- Facilitate Peer Coaching relationship building early - (ICT – pre-placement) and manage throughout (checks)
  – Curtin University Blogging
- Pace and progress students to individual vs shared case loads and cooperative tasks (initial week most intensive)
- Observational Feedback - Individual Feedback vs. Group Feedback
- Secondary source of advice
- Recognise where you are in your own competence and cognitive load
- Align cooperative learning expectations to professional behaviour and other measures on evaluation form*
Applications for the Workplace

- New leadership role
- Rotation in to a new clinical specialisation
- New Graduate Entry
- Course Attendance, participation and approvals

References (1)


References (2)


References – Ladyshewsky (1)

References – Ladyshewsky (2)


• Ladyshewsky R. (2006) Building cooperation in peer coaching relationships: understanding the relationships between reward structure, learner preparedness, coaching skill and learner engagement. Physiotherapy. 92:1;4-10.


