

CLINICAL REASONING...

What is it and why should I care?



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This handbook was created in the spring of 1999, during our final year of Occupational Therapy at the School of Medical Rehabilitation, (University of Manitoba). The handbook was a portion of an Independent Study, which we elected to do in lieu of a traditional elective, in the final block of our studies.

The study was proposed by Theresa Sullivan M.A., BSc.(OT) (Academic Fieldwork Coordinator) who had, and continues to actively read and present on the topic of clinical/professional reasoning to colleagues and students, often together with Anne Strock MSc., BOT, DipOT (at the time was Education, Systems & Research Coordinator at Health Sciences Centre in Winnipeg, MB). Through this work, they found a gap in the literature around student perspectives on learning and applying clinical reasoning. Theresa proposed to enlist students to study this gap, in order to brainstorm for ways to fill it. The product of this brainstorming, is this handbook.

In accepting the proposed study, our primary goal was to gain enough knowledge and understanding of clinical reasoning that we could develop something practical and useful for other students. We also hoped to be able to offer fieldwork educators unique insights and ideas for educating students during fieldwork experiences. To this end, our project was created. It included: reading selected information on clinical reasoning, keeping a journal of our thoughts and ideas stimulated by the reading, meeting weekly with our facilitators (Theresa and Anne), and finally collecting and producing material to create a handbook.

A giant thank you goes out to Theresa and Anne who provided us with unending support and guidance while facilitating the development of this handbook every step of the way.

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NOTE: Throughout this handbook, the gender “she” has been applied to therapist and “he” to client, for the ease of the reader. The authors recognize that the opposite is also true!

WARNING!

You may not be ready for the following information.

Sometimes students are not aware that clinical reasoning exists – it may take until you hit rock bottom or are scared out of your mind before you are ready.

We know...that's why we became involved.

-- Lisa & Jodene

HAVE YOU EVER?...

... WATCHED YOUR FIELDWORK EDUCATOR CHANGE HER MIND DURING AN INTERVENTION AND YOU HAVE NO IDEA WHY SHE CHOSE SOMETHING DIFFERENT?

... HAD A SESSION MAKE COMPLETE SENSE TO YOU WHILE YOU WERE WATCHING YOUR FIELDWORK EDUCATOR BUT THEN WHEN YOU TRIED TO DO A SIMILAR THING YOU COULD NOT GET FROM POINT **A** TO POINT **B**? IN FACT, YOU ENDED UP AT **G** – SOMETHING YOU'D NEVER SEEN BEFORE OR EVEN CONSIDERED?

... FINISHED AN INTERVIEW OR TREATMENT SESSION AND COME BACK AND REPORTED YOUR FINDINGS TO YOUR FIELDWORK EDUCATOR AND SHE ASKS YOU THE ONE THING YOU DIDN'T THINK TO ASK OR LOOK FOR?

... PROUDLY REPORTED YOUR INTERVENTION IDEAS TO YOUR FIELDWORK EDUCATOR FOR YOUR NEXT SESSION AND **DIED** WHEN SHE ASKED, "WHY DID YOU CHOOSE THAT?"

... WANTED TO YELL AT YOUR FIELDWORK EDUCATOR: HOW DID YOU KNOW TO DO THAT???

... FELT EXTREMELY TIRED AFTER A TREATMENT SESSION BUT ALL YOU DID WAS WATCH, SO YOU'RE NOT SURE WHY YOU'RE TIRED?

... BEEN WORKING WITH A CLIENT AND COPYING EXACTLY WHAT YOUR FIELDWORK EDUCATOR JUST DID WITH ANOTHER CLIENT AND SHE SAYS TO YOU "I NEVER WOULD'VE DONE THAT."

... TRIED TO DO SOMETHING THAT LOOKED SO EASY FOR YOUR FIELDWORK EDUCATOR AND GOT STUCK AFTER "HI, MY NAME IS..."

... IF YOU ANSWERED "**YES**" TO ANY OF THESE QUESTIONS THEN YOU'VE RUN INTO CLINICAL REASONING (**AND IT HASN'T BEEN PRETTY**).

Learning Clinical Reasoning is like Riding a Bike!

Clinical reasoning has been likened to the process of learning to ride a bike (Benamy, 1996). Once the learning is done, the knowledge becomes tacit (a fancy word that means it's engrained and you don't have to consciously think about it).

"A verbal description of how to ride (a bike) would be of virtually no use to a listener wishing to acquire the skill – it needs to be experienced directly ... (This) accounts for the phenomenon that expert practitioners know more than they say."
(Benamy, 1996)

We sat back and wondered. Why is it like riding a bicycle? Let's see...

When you started to learn how to ride a bike, you probably started off on a tricycle. Then, with practice you moved up to a REAL bike with training wheels, then eventually to a regular two wheeled bike. I'm sure your parents spent a lot of time watching over you. They probably even ran along side you in case you started to tip. Finally, the day came when they just had to let go because you needed your independence. Now, you hop on your bike without even thinking about it. If you were asked to explain in words how to ride a bike, how well would you do? Would you arrogantly say, "I just know how, that's all!"

This is a lot like the student to expert progression in clinical reasoning. At first we really struggle, but receive guidance along the way from our peers, professors, and fieldwork educators until we eventually get better.

But there is one major difference between clinical reasoning and riding a bike ...

You can see the bike!

A child knows when they are sitting on the bike that they are trying to learn how to ride it. You can't see clinical reasoning. Often the student doesn't even know it exists.

**So how can we learn clinical reasoning?
What exactly is it anyway?
Why should you care?**

For the answer to these exciting question and more, read on.

Clinical Reasoning...It's Just Like... Ballroom Dancing!!

Have you ever taken ballroom dance classes? Well, neither have we but, we're going to compare it to that anyway.

Imagine yourself at your first day of ballroom dance classes. You have seen other people dancing before, and you think this might be something you would like. So, why not give it a try? You meet your instructor; she shows you a few steps and begins to tell you how you should perform. After watching her you wonder, "How does she dance so smoothly?" You begin to really doubt yourself, but still attempt to try. She explains all the steps to you, lays out those little black feet on the floor, and counts out the music for you. It takes all your energy just to memorize the little steps, listen to her, and to follow the footprints. You practice really hard; you follow the motions, you copy her exactly. You have to concentrate on the moves so much that the dance lacks your own expression or style. You are also so focused on the moves that you are not aware of what your partner is really like, even though he or she is doing the dance with you. You especially notice that you have problems when the music changes or your instructor is not around. "Wait a minute", you say to yourself, "How come the samba doesn't fit when I play the tango? How do I know that that music calls for a polka instead of the lambada?"

But, as time passes, you somehow find the strength to continue practicing your moves. You soon find that you are less focused on the actual steps of the dance as they become more integrated into your knowledge base. You begin to really know your dance partner; you can interact with him and he seems to enjoy dancing with you a lot more. Suddenly you can integrate more of yourself into your dance steps; you can add your own little flare to the basic moves. Someone can come in and change the music, and you don't lose a beat, you may even anticipate the change. No matter what kind of music, or what kind of partner you have, you are able to decide what moves you need. You may even find that someday you will be a dance instructor, and you will have difficulty remembering what it was like long before you were a dancing superstar.

Clinical Reasoning is the thought process that guides our practice, or in this case, that guides our dance routine. When we first become therapists we focus on the actual steps of the dance (this is called procedural, we'll explain later). These steps are what seem most basic to us, and are the easiest to grasp. A huge focus of our curriculum lies here. In a way, these dance steps can be compared to how well we use all of the knowledge that we've picked up in school and on our placements. We have learned the steps of an assessment, the steps of identifying goals, and the steps of developing an intervention plan. Sure we

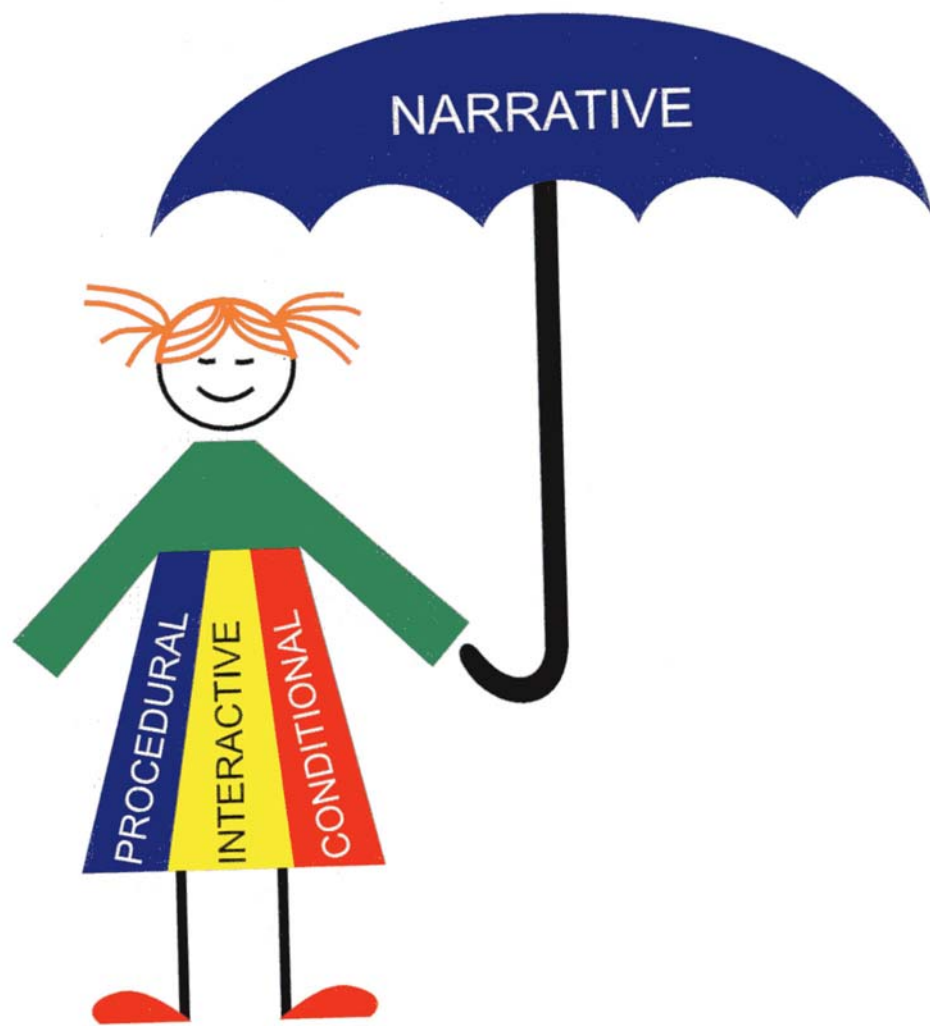
can become okay dancers, but our dance moves are still limited, even after we graduate. We continue to have difficulty deciding which moves go with which dances and struggle when the music changes unexpectedly.

Suddenly, when we get into practice, the music changes much more than ever happened in dance class. We also have less time to think about what moves we need to make. We may find that the music stays the same for two different partners, but the dance we must do is distinctly different. This can be compared to having two clients with identical diagnoses or conditions, but the interactions we choose and the intervention plans we develop are completely different.

With practice, we begin to be able to recognize and accommodate for all the changes. We begin to feel more comfortable with the moves we make. As we concentrate less on the dance moves, we suddenly become better able to interact with our dance partner...our client (this is called interactive reasoning). We can actually begin to understand what dances our partner enjoys, and motivate him to be part of our dance. Or perhaps, it is more appropriate to say that we will become part of our client's dance.

Expert therapists are much like the expert dancers. They might be unaware of how many times they have switched dance moves and might not realize that they were going to waltz and then at the last minute they decide to cha cha cha. They are able to integrate all of the information and quickly think of exactly what they want to do. If any part of the information changes, they are quickly able to make accommodations. They may even think a lot of their moves are "common sense" and "logical" and may not even realize the "expert" dance moves that they have developed.

We hope that this dancing analogy will help you to understand clinical reasoning a bit better. Hopefully you have now begun to think about clinical reasoning, and how it is the thinking that guides us in practice. This process, like the ballroom dance, becomes simpler yet more complex with experience. And yes, it will get easier.



PRAGMATIC

The Types of Clinical Reasoning

Clinical reasoning is “the thought process that guides practice” (Rogers, 1982). Just when it sounded easy....Well, now we’d like to present all the different types of clinical reasoning that we found in the literature.

We decided to go out on a limb and create our own diagram to explain clinical reasoning. What we came up with is a therapist holding an umbrella. Let us explain...

Fleming (1991) describes therapists as having a three track mind. We have illustrated the three tracks as the stripes on our therapist’s overcoat. The names of these tracks are procedural, interactive, and conditional. These are the three main tracks that guide a therapist’s thought processes.

Procedural Reasoning

This is the easiest for us to understand. There are a few reasons for this:

- It’s the most concrete.
- It’s a big focus in our curriculum.
- As students, we see it as being the most important.

Procedural is the “how to” of the therapeutic process. We see something is wrong, so we try to fix it. The focus is on the disability itself and we draw on our knowledge of diseases and conditions to fix it. Things like problem identification, goal setting, and intervention planning all fall under this type of reasoning (Fleming, 1991).

Interactive Reasoning

This type of reasoning focuses on the client as a person. By using interactive reasoning we can begin to understand the person better, and can appreciate the disability or illness experience for the client. This type of reasoning “humanizes” the conditions that you identified through your procedural reasoning. Some reasons why a therapist might use interactive reasoning include:

- To engage the client in the intervention session
- To get to know the client as a person
- To understand the disability from the clients point of view
- To match the goals and interventions to the client
- To communicate a sense of hope, trust, and acceptance to the client
- To determine if the intervention is going well

(Fleming, 1991)

We really liked this quote...

***Procedural reasoning guides treatment.
Interactive reasoning guides therapy.***

Fleming, 1991

Conditional Reasoning

This was the hardest type for us to understand. According to the research, we shouldn't understand, at least not yet! Conditional reasoning requires experience; we don't have a lot of that yet. It usually can be seen in therapists at the expert level. Conditional reasoning can be described as the multidimensional process that involves complicated forms of thinking. The therapist reflects on the success/failures of the interactive and procedural reasoning. The therapist imagines what the future of the client would be like, and is able to constantly revise the therapy to suit this vision. The thinking moves beyond the present to a deeper level of interpretation of the person as a whole.

- Have you ever had trouble imaging where a client will be in a few years down the road?
- Have you ever struggled with what realistic long-term goals might be for your client?

Answering these questions comes with experience, and with conditional reasoning.

So how do procedural, interactive, and conditional reasoning fit together?

Picture these tracks (or for us stripes) running along side by side. When a therapist is thinking about a client she will rapidly switch from one track to another, without even thinking about it, in order to look at and solve different aspects of her clients' problems. In a way, each track has a different focus. All the "how to" goes on the procedural track, the interaction to understand the person better goes on the interactive track, and the future vision is developed on the conditional track. The therapist puts all of these tracks together to form a holistic view of the person and to determine how to enable the client to reach his or her occupational performance goals. The therapist uses multiple strategies to improve a client's level of functioning, and must have a full understanding of the client to plan effective interventions.

But, all of this occurs developmentally. When we first start out, we only get one stripe on our rain coat; we only have one track open in our brain. This stripe/track

is procedural reasoning. We focus very hard on procedures. We measure out how much we *know* by how much we are able to *do*. When we become confident with procedural reasoning we earn another stripe, we get to open the next track. This is interactive reasoning. When we are less concerned with whether or not what we are doing is right, we are better able to interact with our clients and understand the illness experience for him/her. This is not to say we didn't interact with our clients before, it's just that now it is at a much more meaningful level. Finally, the last stripe we earn is our conditional reasoning. This is what integrates the other two stripes/tracks to help us to see the person's future.

Skipping from track to track and pulling all of the tracks together is something that comes with experience. Obtaining these stripes is developmental, and like most processes, occurs at different rates in different people. And of course, the development of these tracks is not as black and white as we've made them sound.

Narrative Reasoning

So, our therapist is wearing a coat with three stripes. And she is holding an umbrella. The umbrella represents narrative reasoning. We had a bit of a struggle understanding this kind of reasoning, mostly because each article seemed to describe narrative a bit differently. What's easiest for us is to think of it as the talk that goes on between two therapists, when they are describing their clients. For example, "I have this one client, and I'm not too sure what to do..." The therapist then begins to describe the client in the form of a story. But, narrative reasoning is more than the story, that is, stated aloud; it is also the story that is happening inside the therapists head.

Narratives are the stories we create about our clients; we imagine our clients as stories. In a way, we are opening up a specific chapter in a client's life; there are chapters behind him/her, and there are chapters still to come (Alsop & Ryan, 1996). During occupational therapy the therapist and the client are experiencing the same story (MacRay & Ryan, 1995). Charting requires its own type of "chart talk". The main character is the client's disease or condition. But with narratives, the client becomes the main character. The person's experience and situation become the focus (Mattingly, 1991).

Narrative reasoning is considered to be the umbrella over which all the other types fall; it guides the other types of reasoning. It is seen as the HOW we organize our thoughts about the client. The contents of the other tracks can be organized, stored, and shared through narrative reasoning (T. Sullivan, personal communication, March 1999). With narrative reasoning the client's story unfolds. Sometimes what happens along the way in a clients story is just as important as where the story goes.

Pragmatic Reasoning

This type of reasoning is not under our narrative umbrella, nor is it a stripe on the coat. Instead, it is the frame that surrounds the whole picture. The reason we see it this way is that it considers all the practical issues of treatment. This type of reasoning is also easy for us to understand; it is very concrete. In a way, this is the reality check of therapy, because it addresses the limitations that you may face in practice. Some examples include:

- The treatment environment (physical size, quantity and quality of equipment, amount of interaction with others/privacy etc.)
- The therapist's knowledge and abilities
- The therapist's values
- Insurance coverage/finances available to client
- Client's social supports

Pragmatic is usually quite obvious to us, especially on our first few placements. This is probably because the considerations are very concrete. We learn to develop intervention plans in an ideal world at school

Confused Yet???

We have tried to explain the types of clinical reasoning as best we can, but don't despair if it doesn't come easy. These are really hard concepts to get your head around. There are a few reasons why these terms aren't easy to understand. For one, they'd be easier if the terms were a little more tangible. Another reason is that we don't have a lot of experience yet. It's not that easy to define the types of clinical reasoning until we've experienced them ourselves. A lot of the clinical reasoning processes are developmental; we strengthen our reasoning skills with practice and time.

We still have struggles with understanding these terms, despite having read a lot of articles. **WE HAVE FOUND THAT AWARENESS IS KEY. We can't read about clinical reasoning and expect to be experts, but we can facilitate the process by understanding that it exists.** So, it wasn't our intention to mess you up and confuse you. We just wanted to give you some things to think about!

Why Should You Care?

At this point you may be saying, "So what does it matter if I know about clinical reasoning or not? I've managed just fine on my placements until now!" At least that is what the two of us were saying until the final semester of our final year. So, we devised a list of points to hopefully convince you of something that we wish we'd understood a little earlier on in the game -- clinical reasoning is something worth looking into!

So...why should you care?

Care, because clinical reasoning is the backbone of our profession.

Think about it. If clinical reasoning is the thinking that guides practice, then without it all we have is random activities that are chosen for no set purpose. Neistadt found that making therapists more aware of the complexities of their work (and thinking) not only validated their profession, but also increased their job satisfaction (1996).

Care, because clinical reasoning is not just logic.

OT's are always saying, *it's basically just common sense*, but then are so surprised at how little common sense other people have (Fleming & Mattingly, 1994).

Care, because clinical reasoning is what makes our use of *occupation* therapeutic, and different from the average person just doing activities.

To an 'outsider' it looks like we're just playing checkers with our client, but we know that we are watching for and working on things like self esteem issues, reaching, sequencing and thinking – it's not really about the game at all.

Care, because devaluing clinical reasoning belittles our profession.

For example, the literature is clear that most of our interactive reasoning is an 'underground practice.' We don't document it and often don't report on it in rounds, and yet, it is an integral part of our reasoning process and thus, our therapy. We must *value* the process of interaction and not feel bad about it (Fleming, 1991).

Care, because clinical reasoning gives words to what goes on in our minds.

We need to be able to explain the reasons behind our treatment choices to each other, other professionals and most importantly, our clients. Clinical reasoning is a great way to start framing our thought processes in words and explaining the rationale behind our decisions (Neistadt, 1996).

Care, because without clinical reasoning we, and others, will see OT in a fragmented way.

Clinical reasoning links our theory to our practice; it uses past experiences to guide our decisions; it incorporates the limitations of the environment in which we're working and it connects our personal values and style to our therapeutic intervention choices. **Clinical reasoning is the thread that weaves together the choices, treatments and daily work of our practice.**

Tips for Students

This manual would be incomplete if we did not include some tips for students to use on placements or even in the classroom if the opportunity arises. We feel these could be useful to help facilitate talking about clinical reasoning with your fieldwork educators or professors and enable you to start practicing it yourself.

CAUTION: Do not attempt to try all of these at once!

(We gave you as many as we had in hopes that one may grab you and help you!)

Tip #1

TRY SEEING YOUR CLIENT AS A STORY

You are part of that story (but the story had a beginning without you and has much more yet to be developed). Analyze the story you create by asking:

- Who are the characters?
- Where are *you* in the story?
- What is your hypothesis (i.e. what do you predict will happen in the next chapter or by the end of the book)?
- What is the moral of the story?

As you do this with a few of your clients – write it all down. Try to build a ‘mental library’ of client stories. These stories will help you with the prediction part (long-term goal setting) the next time you encounter a similar story (client), (Fleming & Mattingly, 1994).

Tip #2

TRY USING THESE 6 STEPS TO HELP YOU THROUGH THE CLINICAL REASONING PROCESS

We think these may help make the process a little more concrete. Try writing down your thoughts during each stage as you proceed with a client.

1. **Pre-assessment Image** – what do you expect the client’s occupational performance issues to be, based on diagnosis, age, etc.? (*This is the type of info you should be gathering when your fieldwork educator tells you to read the chart in preparation for seeing a client*).
2. **Cue Acquisition** – this is the information regarding the functional/occupational status. (*You get this during your interview/meeting with the client*).
3. **Hypotheses Generation** – organize the info you collected into possible explanations; what do you think the problems are?

4. **Cue Interpretation** – keep gathering cues and categorizing them based on the hypotheses you generated in #3. (*You keep gathering information to add to your knowledge – and use it to prove or disprove your hypotheses*).
5. **Hypotheses Evaluation** – this is when you compare your hypotheses and you figure out which is the best one, or more accurately, which one to prioritize. (*It is key to work in conjunction with your client when you are prioritizing goals to work on*).
6. **OT Diagnosis** – this is your statement of occupational dysfunction – what this client's occupational difficulties are. (Rogers & Holm, 1991).

Now all this stuff goes on in your fieldwork educator's head (and they probably don't even know they are doing it). So perhaps you can go through these steps with them and ask them to explain what they are thinking about in each stage, during (if it's appropriate), or immediately after an initial interaction with a client. But remember, these six steps are rather concrete and nothing is that clear cut. You probably won't find a fieldwork educator who moves through these steps in an orderly and linear fashion. It's just not possible when you're working with people.

Tip #3

USE THESE 2 QUESTIONS EVERY TIME YOU PLAN SOMETHING FOR YOUR CLIENT

- What will I do? (*this is your technique*)
- Why am I doing it? (*this is your theory*)

(Cohn, 1989)

Tip #4

REMEMBER THESE THREE LITTLE THINGS WHENEVER YOU ARE FEELING OVERWHELMED AND FEEL LIKE YOU DON'T KNOW ANYTHING

1. When a fieldwork educator asks you what you think the client's potential problems are, it's **OK** to come up with more than one because most occupational therapists generate **several** hypotheses, which they then evaluate and re-evaluate to see if they still make sense (Cohn, 1989).
2. Quit looking for the magic **RIGHT** answer to things your fieldwork educator asks of you or questions you about – there are very few **right** answers (just lots of good reasonable solutions).
3. Sometimes you will just need to sit there and watch your fieldwork educator and try and learn as much as you can. Just do your best!

The Reflection Section

Reflection is the process of reviewing one's own experiences and knowledge to invent unique approaches to complex clinical problems (Saylor, 1990). A person **reflects** by taking previous experiences and understandings, and linking them with the present. This leads to a new understanding and appreciation of the present. **Reflection** turns knowledge, skills and attitudes into future action. It increases self-awareness, and thus is an important part of the therapeutic use of self (Tryssenaar, 1995).

After reading all of the information regarding reflection, we came to believe that people who reflect are the optimizers of experiences. Everyone can have an experience, but those who reflect on it take the experience and go the extra mile and milk it for everything it's worth. **They are the cheap jerks of clinical reasoning.** They are the people who try to get the most out of a situation. However, in our process, we also learned that reflectors can get so caught up in reflecting, they become too afraid to actually have the experience. The trick is to find the balance between the two.

So, how do you become a cheap jerk and get the most out of your experiences? Reflection, reflection, and oh yeah ... reflection. If you aspire to better your occupational therapy skills, you need to better your clinical reasoning. If you want to better your clinical reasoning skills, you need to be able to reflect.

The following page is a reflective model that was developed by Boud and Walker (1991). It is a tool that you can use to guide your thinking before, during, and after a fieldwork experience.

Reflecting **BEFORE** the Fieldwork Experience:

- As a student therapist, you can prepare and reflect on the future by imagining the prospective fieldwork situation. This is based on your previous knowledge. Some things you can focus on are:
- Yourself: What do you bring to the experience? What do you want to gain?
- Context: What opportunities and difficulties are you anticipating in this particular setting?
- Your learning: What strategies and skills are you going to use to meet your learning needs?

Reflecting **DURING** the Fieldwork Experience:

- Try to actively notice what is happening in and around you to become more aware of the way you are involved in your placement situation.

Reflecting **After** the Fieldwork Experience:

- Now, focus back on your experiences. Start by picking a situation; one that really stands out in your mind. Think about what your thoughts were during that experience. Re-evaluate this situation. What have you learned? What would you do differently next time? This should help you to add more insight and knowledge to your previous understanding of the situation. Now, you will be able to draw on this experience more easily, in order to guide similar situations in the future.

From our experiences, the time before the fieldwork experience is usually filled with tonnes of exams and projects. We don't always have time to think about the future; we have too much sitting on our plates as it is. Then, after the fieldwork experience, we're back to the books again. Most of our discussions with classmates about our experiences focus on all that we saw and did in very concrete terms. So, you may find that reflecting "during" the fieldwork experience may be the best time.

Reflection can be done in your head, but it is often difficult to sort everything out. In times when you are being bombarded with so much new learning, writing your feelings, thoughts, and experiences down can be helpful. This can be done in the form of a journal. Often students cringe at the thought of having to keep a journal. It's hard to be convinced of the long term benefits. Our thoughts about placement are "I just want to **see and do things**...I'm done with the writing stuff—that's what school is for."

But, we're not the only ones who think using a journal is a good idea...

“It is possible to live through an experience and not learn much from it. The motive of a journal is to create some meaning from what (you) have heard.”
Cohn, 1989

“When you're thinking about (treatment), there are many distracting things. When you're writing about it, you think of things you wouldn't have ever thought of. You are more organized. You think of more things when you write it down. It's almost as if you're talking to someone, and the book's reflecting back to you.”

Buchanan, 1998

“A journal not only documents information but also describes a person's reflection on ideas, concerns, and beliefs. It is a means of acquiring knowledge, not merely recording it.”

Tryssenaar, 1995

We realize that journals can be a little intimidating at first, especially if you allow someone else to read it. It can also be a little discouraging, because you're not exactly sure what to write about.

Whether or not you let your fieldwork educator read your journal is up to you. It depends on your comfort level. Often, they are very helpful for the educator to see where you are getting stuck, and to understand what is difficult for you. It can also help you to communicate your own clinical reasoning. If you think it's difficult for you to see the clinical reasoning going on in your educator's head – you can imagine that it's equally hard for your educator to see what is going on in yours.

So..... the Million Dollar Question....

“Did Lisa and Jodene keep journals?”

NO... We never did keep them during any of our placements...much to our regret. It would be nice to have them now to look back on our learning and realize how far we've come.

YES... We were required to keep an e-mail journal during this project (it was just like a journal, except we would send copies to each other and our mentors via e-mail). Our objectives were: to have a means of communicating with each other, to document the process of our project development, and to ensure that none of our ideas that were developed along the way were lost.

THE RESULT... We found that it really helped our thinking. The process made us stop and consciously sort everything out so that we could put things into written words. Not only was the journal helpful for us to get our thoughts out, but we also gained so much looking back on it. Our entries captured our ideas, thoughts and emotions. It enabled us to learn a lot about ourselves and how far we'd come.

Now our completed e-mail journals are full of little gems, like little snap shots of the things that went on in our minds. We were able to do more than just write and document, we were given an opportunity to reflect and truly learn.

We didn't really have any guidelines regarding the format of our journals. For us that really worked. We wrote about how things made us feel, what things came to mind, things we wanted to know more about and things that really made sense at the time and we wanted to hold onto.

“But what if I don't know what to write about?”

We knew you were going to ask that...

We'll help you out with that. You might want to try some of the following suggestions as a guideline. Otherwise, concentrate on what is important to you – what you feel the need to write about.

Reflection Section *Suggestions:*

1. After meeting a client for the first time, think of the following:

- What did you *expect* the client to be like? What was *different* than you expected?

- What does this particular disability / occupational performance problem 'look like' with this client?
- How does the client's character / age / needs affect how you would proceed from here with this particular client?

2. Review an intervention session:

- Did you (or your fieldwork educator) change or sway from the plan during the interview / intervention?
- Did you (or your fieldwork educator) do anything to actively work at the relationship with the client? If so, what?
- How did you (or your fieldwork educator) take the planned activity and make it meaningful for the client?

3. When working with a client:

- What problems did you identify as important for occupational therapy intervention?
- Which problem areas should take priority in your planning? Why?
- What will be the main benefits to the client? What will he get out of your intervention?
- What criteria do you think should be met before he is discharged?
- How effective do you think treatment procedures are for this client? In an ideal world, is there anything you would have changed? What and why?

Robertson (1996)

4. After the fieldwork experience:

- What did you learn about yourself / the client / the profession?
- What advice do you have for yourself for the next time (i.e. what will you do differently, what will you do the same?)
- How could you apply what you've learned here to another population / treatment environment?

Tips for Fieldwork Educators

Although we have not yet walked in therapists' shoes, we thought it might be helpful to offer some practical suggestions that we have come across.

Give a homogeneous caseload!

A lot of fieldwork educators go out of their way to provide their students with a highly varied caseload. However, in the interest of developing clinical reasoning skills, the best thing for students is to see as many different clients with a similar condition as possible (Cohn, 1989). By having a diverse caseload, students fill their pockets with information at the “technique” level. Of course, we, as students, see this as being good, but what we don't know is that we are missing out on the chance to see various clients with the same diagnosis, yet with very different presentations. We are provided with less opportunity to begin to develop a thinking frame and to see how the uniqueness of each client influences the therapeutic process.

Talk out loud!

Talk out loud while reasoning so your student can hear what is going on in your head, (Slater & Cohn, 1991). It is difficult for students to follow the steps you take. They happen so fast that the student only sees the end result – missing everything that's gone on in your head. Students can't learn simply by watching your actions, try to share your continuous thought revisions.

Make your student make predictions!

Ask your student to predict what they expect to see when they go to see a client for the first time based on what they have read in the chart. This gets your student thinking through what the condition may actually 'look like' in a person.

Encourage “What” and “Why” questions!

Cohn (1989) suggests asking students the “what” and “why” questions about their clinical decisions. There is value in this approach, but sometimes it is the worst thing for students because it makes us think...and there is such a high risk of looking foolish! But, students should be encouraged to always ask themselves those questions. If you don't know **why** you are doing something then you really need to stop and re-evaluate **what** you are doing.

From the student perspective!

We would like to give you some of our impressions taken straight out of our journals that we kept to record our thoughts throughout the clinical reasoning project. They aren't tangible suggestions, but hopefully they can give you insight into what may be going on in your student's head as you skillfully reason and they try to understand.

- **Awareness** is a huge part of learning. You can read the definition of clinical reasoning, but until you truly understand it as the backbone of OT, it will be difficult to learn. We as students focus so hard on the SKILLS that we are unable to see all that goes on behind the scenes.
- After reading that therapists design their treatment plans with the assumption that the plan will be constantly modified (Cohn, 1989), we were very encouraged. We were always looking for the **right** treatment plan. We would show it to our therapists and wait to see if we hit the mark or not. It seems so simple and yet we never got it.
- The reflection process is very threatening for a student. You feel like you are putting your lack of knowledge on a platter for your supervisor to judge. I agree with Slater and Cohn (1991), who suggest that the supervisor act as a role model to show that they are willing to take the risk of making their own reasoning process **explicit**. This will help the student feel less threatened in sharing their thinking.
- In school we learn the value of being client centered. We learn that every person is different, and we need to focus on the person as a whole. But in reality, when we first get into practice, we are unable to follow through, focusing mostly on the procedural thinking. Maybe students need something concrete to hold onto... maybe we are 'proving' ourselves to other more medically oriented professions... maybe we just want to pass and if Mr. Jones can move these cones twenty times then we're sure to have proven that we know what's going on.
- It was interesting to read about "chunking" (Robertson, 1996) and having the ability to take a complex situation and put it into a smaller number of patterns or chunks related to our existing knowledge. So many times we've had a problem thrown our way, and it's been one big mess. We were unable to break it down and felt very overwhelmed.
- It would be helpful for the educator to explain what cues they are focusing on. So many times during or after an interview, we're overwhelmed at the information and yet our therapist walks out of there knowing exactly what she learned of the client and her plan of action.

So... What was it Like for Us?

At about week six of this nine-week project, our advisors, Theresa and Anne, recommended that we write little narratives to explain what this whole process had been like for us (i.e. how we got started, our trials and tribulations). We were encouraged to write the narratives however we liked. Somehow writing allowed us to stop and think about the clinical reasoning world going on around us; it was almost as though we were so far into it that we couldn't appreciate all that we had learned and gained. Writing these narratives filled us with new strength to carry on with this project. So...now we give them to you, like a little "about the authors" to help you see what this process was like for us.

THIS EXPERIENCE FOR ME...

The Alien Encounters

by Lisa Mendez

I remember being on a placement, a little less than a year ago. It was then that I began to realize that my supervising therapist was an alien. They all were. Well, maybe they weren't real aliens, but there was something going on with them. I began to realize they were keeping something from me, like a secret code that went on in their heads. What was this secret code that was being kept from me? Then it happened. She tried to make me one of them. She tried to make me think. She tried to make me reason. At first I thought she was attacking me. "Why do you think I did this? What is your reason behind that? How would your goal change if X happens?" I didn't know what to do. **"NO, YOU CAN'T MAKE ME THINK,"** I screamed. **"I CAN GET BY JUST COPYING YOUR EVERY MOVE. I DON'T NEED TO THINK!"** But, I lost the war. It was not enough to just smile and charm, and repeat little tricks I had seen the other aliens doing. I had to think on my own, and it scared the crap out of me.

I didn't really put that much thought into the secret code anymore, despite having another placement immediately after. I was getting used to the idea of having to think, and it was scaring me less. I was still unaware that this code had a special name. I found out later that, yes, I had heard of it before, but like a lot of theory when presented to an OT student, it went in one ear and came out the other.

So, one day in the fall of my final year, I showed up at a little seminar to try to figure out which electives I would like to choose in order to complete my final stint at OT school. Theresa began to talk about offering an independent study looking at clinical reasoning. My ears totally perked up. Could this be the code?

When Jodene and I first went into Theresa's office as a team, I was so pumped up. We hadn't even begun to know what we were getting into. "This is going to be so much fun," I thought. "This is exactly what I need to make me the perfect therapist when I graduate. I'll have all the answers. Not only will I have all the knowledge about what clinical reasoning is, I'll know exactly what to do with it when I get it."

But, then in the spring when the independent study started, it was time to settle down and think about the "code". I got my stack of journal articles that I would be required to read. Suddenly, I wondered what I had gotten myself into. At first the journal articles brought on a love/hate relationship. Basically, I loved to hate them. Some reading days are better than others. I'm embarrassed to say that I've even spent weekend nights reading, and have really gotten into it. I have especially loved meeting in our seminar groups and meeting with Jodene.

I feel so full of life during our discussions. That, and confused, but mostly full of life. I have found this powerful feeling of validation for the profession I have chosen as well.

With each article I approach I am filled with fear, “Will this one bring in a new idea that will just confuse me just after I’ve figured everything out?” Sometimes ignorance is bliss. Sometimes the more I read the less I know. I find myself wondering what other people think about when they’re not thinking about clinical reasoning all the time. Even though Jodene and I still don’t have the answers, we enjoy thinking we do. We have become the missionaries of our school. We are preparing our manual to spread the word, but we are hurt that not everyone is ready to hear it. But, when they are ready to hear it, they will come, and I’ll sit back and say, “I was wondering when you’d meet your first alien?”

A lot of my apprehension about doing this project stems from me feeling like I’ve learned so much, but yet I feel as though I have nothing to really show for it. This project could have been spread out over a year. But, I guess in a way, it’ll be spread out over a lifetime. A lot of the information that I have taken in will not be used. I’m still not ready for it. Sometimes I wonder if some of this information that I’m taking in is doing me more harm than good. I spend too much time thinking about thinking. I am anxious about how I will develop my clinical reasoning skills. I am offended that even after reading all this stuff, I will still be at the bottom of the continuum for levels of expertise. Theresa constantly has to remind me that no matter what I take from this project, I will still be much further ahead than where I’d be otherwise. “Remember, it’s the process, not the content.”

Every once in a while I look upon my journals and smile, sometimes because it reminds me how excited I was, other times because I was so sick of clinical reasoning journals and could barely carry on.

But one thing I know is...I can’t wait until I’m a full-fledged **ALIEN**.

Lisa

THIS EXPERIENCE FOR ME...

The Stages of Clinical Reasoning

by Jodene Neufeld

I heard about the idea for an independent study in a curriculum committee meeting and immediately my interest was tweaked. I knew I wanted to try it to see if I, Jody, could do the work – handle *research*. I knew I wanted to learn if research was for me – would I ever pick up another journal after I graduate? But what topic could I do?

When I met with Theresa and she explained her clinical reasoning idea to me I wanted to start immediately. I knew I loved it and wanted to do it, the rest was just gravy (that is, sorting out the details). From the first moment on I knew this clinical reasoning thing was giving a voice to the overwhelming concerns I was feeling at that time. “My head is empty, I’m graduating in a few months and I’m supposed to know how to do OT” – WHY DON’T I? So I knew the study was for me.

Now, I’m here.

As we started off the reading it all seemed abstract, but I enjoyed thinking about it that way. Part of me felt like there was this OT secret that now Lisa and I were privy to and I liked feeling like I knew something that no one else did. I call this the **awareness stage** (denial is over). The reading really validated the OT profession for me. For so long I haven’t been able to explain what OT is to my friends and family that I’d begun to wonder if we actually did do something! The reading began to show me just how intricate OT practice and thinking is. Then I felt relieved – phew, we do have a role in the medical care system. I felt fine that I didn’t know how to do clinical reasoning – after all I was a novice.

As the reading and discussions continued, I began to feel frustrated and angry that authors and doctors etc. were trying to fit us into the medical mold by de-valuing some of our reasoning or labeling it in ‘doctors’ terms. After realizing we have all this *process* and interactive reasoning going on and then finding out that it’s the underground OT practice it kind of brought me back around to the same place again. If we can’t tell people what we do, how will our profession ever be respected and advance? At this same time I was frustrated personally because the more I read about novice, the more I realized I am at the bottom end of that scale and surely all this reading and studying should warrant at least a minor move up. I completely identified with Lisa’s statement, “I’m offended that I’m still a novice.” I call this the **anger stage**.

Now its time to start getting something down on paper that can count as the fruit of all our labor. I feel unqualified and totally scared. Who are we to act as authorities and try and pass on the knowledge – so far when I’ve tried, people have not accepted the ‘good news’ as much as I’d hoped. I don’t know what to write; I have no new ideas. I call this the **fear stage**.

Today, as I reflect – I realize it’s one more step in reasoning my way through this study (it sucks that I had to be tricked into it by this assignment from Annie). I’m calmer. I’m back to being OK that I only know **about** clinical reasoning, not **how** to do it. I know what to look for when I’m thinking my way through practice. If I’m honest, I mainly would like people to know what clinical reasoning is and that it exists before they leave here. I think that’s important. I call this the **acceptance stage**.

All I know is there’s nothing else I’d rather be doing or learning about this semester. I did it for the process – it turns out I love the content too.

Jodene

Quotable Quotes

We were required to read many journal articles during the course of creating this manual. A lot of phrases really stood out in our minds, and we didn't want them to become lost. So, now we give to you a collection of quotes from not only our readings, but also from our own personal journals that we kept throughout this project.

Well, I read my first two articles and right now I feel like I know exactly what clinical reasoning is. I'm writing this down because I feel at any moment this feeling will go away and I will be more confused than ever.

Jodene's first journal entry

So, I read my first article today. Please tell me this gets easier. How am I going to present on something I can barely define?

Lisa's first journal entry

I have found the reading to be very validating in my thoughts of OT. I have always known our profession is important and that we have skills that no other health professionals carry, but it was hard to put into words.

Jodene's journal

"Students cannot be taught reflective practice, but can be coached in it."

Schon, 1993

"Therapists often don't realize they're thinking, unless interviewers ask them to describe their thinking. Not that therapists don't think, they just don't think about thinking."

Flemming & Mattingly, 1994

I thought we were too focused on definitions of clinical reasoning. So, I will define the word LOSER instead. A loser is someone who sits at home in her red one-piece long underwear outfit, writing about clinical reasoning on a Friday night.

Lisa's Journal

“In a way, it’s exciting to read about what happens in my head when I’m doing an initial interview with someone. I knew something was going on (besides panic at not understanding what they have). Somehow I’m watching them like a hawk and desperately trying to pick up on anything. Now I know that is cue acquisition.”

Jodene’s journal, (Rogers, 1991)

“Seize whatever opportunities are available that will enable us to take responsibility for the future of occupational therapy. For some of us, those opportunities will arise in practice; for others, in education, political action, or research and scholarships.”

Burke, 1991

“One thing I identified with is the part about how a problem solver attends to relevant information only. As a novice so many times during or after an appointment I’m overwhelmed at the information and my therapist just trots out of there knowing exactly what she just learned of the client and her plan of action. It made sense to me that I attend to every detail of verbal and non-verbal communication and I try to pick up on every little cue that is given or even hinted at so that I can be a good observer and catch all their problems. It makes sense to me why that leaves me feeling overloaded so much of the time. IT’S TOO MUCH! Is there any way we can communicate this to the students?”

Jodene’s journal (Robertson, 1996)

“Expert clinicians can reflect while they are in action. While they are treating a client they are evaluating at the same time.” I think I might have done this on placement but the reflection was largely based on "what is my therapist thinking, is this the way this client has received this treatment before, can they tell I don't know what I'm doing, they aren't enjoying this, I'm not enjoying this, I would never be doing this...." You know just the average thought stream that runs through students' minds as they perform treatment "under the watchful eye".

Jodene’s journal (Rogers, 1983)

“Too often, reflection only occurs when things are going badly.” Oh yah...do I believe that one. If it ain’t broke don’t think about it.

Tisa’s journal (Steward, 1996)

"Early failure to see a relationship between course work and fieldwork, or excessive criticism of their theory building will create a divide. Therapists may only explicitly incorporate theory into their practice when time and encouragement allow." I've already mentioned how NB I feel that recognition is, but I guess I really never thought about time and encouragement being

necessary too. That's something that I guess I'm concerned about. From my experience, therapists are usually run off their feet. Then, add to that that I will work way slower than the average therapist. So, when will I have time to reflect, bridge gaps, think about thinking. Will I have a 24 hour job just to fit in all the reasoning/reflection that I'm so determined that I will do when I start work? Or, will I just say, "screw it" and do what I have to do to stay sane...which is likely just focus on the procedural and hope for the best? I think I'm one step closer to filling out the 7-11 application.

Tisa's journal (Steward, 1996)

I once had a supervisor tell me that she liked having students because she learned so much having them. I was so nervous that she was expecting me to tell her everything I'd learned in my first year of OT. It's not until now that I realize that she meant that students make you stop and think about and appreciate your own clinical reasoning.

Tisa's comment in a seminar

"In all professions, professionals can sometimes simply engage in a process of technical reasoning, because the ends are not up for question. The airplane pilot, for example, need not reconsider whether he or she really ought to fly to Washington, DC, if many of the passengers would much prefer Rio as their final destination. Nor does the pilot face the additional problem of calculating where to get the extra gas because a much shorter trip had been planned initially. Depending on one's perspective, occupational therapists are more or less lucky. They do often have the problem of reassessment while en route. Theirs is a complex practice in which they must reconsider and recalculate, often in the midst of a treatment session."

Mattingly, 1991

What I took from the article is that reflection is the key to becoming better at clinical reasoning. Somehow making the tacit, explicit. It makes sense to me. Not necessarily all that's involved in clinical reasoning but how to introduce it to students. I realize that that is one thing I have lacked in my clinical work - reflection. So things that were tacit to my educators remained that way. It's making me wonder whether a journal should be a required thing (by the school-maybe as part of your fieldwork requirements) on at least one or two placements. It would force you to begin to reflect on what you were seeing your therapist do and what you were doing in your treatment-especially treatment that you do without your supervisor there.

Jodene's journal (Mattingly & Gillette, 1991)

I liked the comment that knowledge is not the acquisition of facts but how well you can grasp or comprehend the objects/experiences encountered. This just seems to make learning much more meaningful. You were right Jod: I too agree that it's not enough to simply participate in learning new things...we need to process it though reflection. But why does reflection time usually seem to coincide with ten minutes before the class ends...so we never really get to it?

Lisa's journal (Higgs, 1992)

Reflectors seem to be the optimizer of experiences. Everyone can have an experience, but those who reflect take the experience and go the extra mile and milk it for everything it's worth. They are the cheap jerks of clinical reasoning, trying to get the most out of something. We should be good at reflecting then hey Jod!!

Lisa's journal

"Students are searching for the "right way" to think and perform and don't tolerate ambiguity very well."

Cohn, 1989

Clinical Reasoning: students don't know it exists, therapists don't know that they're doing it. This seems to be such a battle.

Lisa's journal

"Students must establish routines to reassure their technical skills before they can begin to reflect on their practice."

Cohn, 1989

"Clinical expertise involves more than the attainment of a certain level of clinical competence; it involves a commitment to learning as well"

Kamhi, 1995

Recommended Readings

These are the research articles and books that we found most helpful on our quest for learning about clinical reasoning. We have quoted from many of them throughout this handbook and we think that they are a great place to start if you're looking to do some good reading on the subject.

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Schwartz, K.B. (1991). Clinical reasoning and new ideas on intelligence: Implications for teaching and learning. *The American Journal of Occupational Therapy*, 45(11), 1033-1037.

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Strong, J., Gilbert, J., Cassidy, S. & Bennett, S. (1995). Expert clinicians' and students' views on clinical reasoning and occupational therapy. *British Journal of Occupational Therapy*, 58(3), 119-123.

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