
It Takes Time to Think

PURPOSE

To introduce alternative solution and consequential thinking
To help children begin to recognize that problems cannot always be solved quickly and that the first idea one thinks of may not always be the best one

MATERIALS

Pencils and paper

TEACHER SCRIPT

Today we're going to see what happens when we do and do NOT take time to think about something.

Here's a problem between two people: Person A made Person B ANGRY because Person A spilled food on Person B's clothes.

Have children take out pencils and paper.

Everyone write a solution.

A *solution* is a way to solve a problem—in this case so Person B won't be ANGRY anymore.

Write it down, very quickly.

Allow only 5 seconds for children to respond.

OK, now let's do this again, only this time, stop and think of a really good idea.

When you think of a good idea, write it down.

Allow more time for children to respond.

If you think your first idea is better than your second one, raise your hand.

If you think your second idea is better than your first one, raise your hand.

(Regardless of whether more thought their first or second idea was better) Sometimes it takes time to think, and the first thing that pops into your head is not always the best thing to do.

Ask a child to read both of his or her solutions.

(To the child) Which solution do you think is better?

Why?

Does anyone have a DIFFERENT opinion about which one is better? Why?

Let a few more children read their solutions. Ask them the same questions you did the first child.

Can you think of a time when you did something to solve a problem and later thought of a better way?

Tell us about it.

HINT

Be sure not to place any value judgments on what the children say. Let the children hear the pros and cons (as stated by them) for each solution offered.

ICPS Tic-Tac-Toe

PURPOSE

To give children practice in generating solutions and identifying enumerations

To help children classify the nature of problems and ways to solve them

MATERIALS

Chalkboard or easel

TEACHER SCRIPT

Today we're going to play the game tic-tac-toe in a special way.
But first, as a warm-up, we'll play it the regular way.

Draw a tic-tac-toe box on the chalkboard. If anyone does not know how to play, pick two children and have them demonstrate how the game is played in the usual way.

OK. Now we're going to play this game in a new way.

I'm going to tell you a problem.

The X person thinks of lots of solutions, one for each square.

The O person thinks of lots of solutions, too.

Each person takes a turn picking a square and giving a solution.

If the person gives a DIFFERENT solution, he or she gets to put an X or O in the square.

If the person gives an enumeration of a solution already given, an answer that is the SAME, he or she doesn't get the square, and the other player gets a chance.

The other player can then pick the SAME or a DIFFERENT square.

As soon as we put a solution in the square, the rest of you watch and try to catch enumerations.

Choose two children to come up and play the game. If necessary, remind the group that the object of the game is to be the first one to get three Xs or Os in a line.

Here's the problem: LeMar was riding Curtis's bicycle and broke the wheel.

He's afraid Curtis will be ANGRY.

What can LeMar do or say so Curtis won't be ANGRY?

Draw another tic-tac-toe box on the board and write down the players' solutions in the boxes of their choosing. If the solution is an original one, let the player mark an X or O, as the example shows.

Put wire on it X		Fix it (Enumeration)
Say sorry X	Buy a new one O	
Give him candy O		

If a child's response is seemingly irrelevant, ask, "How will that help keep Curtis from being ANGRY?" If the response is still irrelevant, erase the idea and ask for a new solution.

If an enumeration is offered, write it down and wait for a child to catch it. If a child catches it, ask him or her to explain why it is an enumeration, then erase the enumerated response. (In the sample provided, "Fix it" is an enumeration of "Put wire on it" and should be erased.)

The child who catches the enumeration replaces the child who gave it. If the new player can give a different solution, he or she can pick the same or a different square. If no one catches the enumeration, point it out yourself. If you point out the enumeration, let the original players continue.

If time permits, let children make up a problem and repeat the game.

HINT

Children enjoy gathering in small groups to play this game during indoor recess.

Is This a Good Time to Act?

PURPOSE

To develop further sensitivity to timing as an important element in problem solving

MATERIALS

Illustrations 28 and 29

TEACHER SCRIPT

Let's talk some more about GOOD TIMES and NOT GOOD TIMES to do things.

Show children Illustration 28.

What is happening in this picture?

Is this a GOOD TIME or a NOT GOOD TIME for this girl to talk to her mother?

Why do you think that? (*If needed: Can the mother talk to the girl AND the baby at the SAME TIME? How will the mother feel if the girl tries to talk to her now?*)

Does anyone have a DIFFERENT thought about this?

Why do you think about it that way?

If you think this is a NOT GOOD TIME, what can this girl do while she waits?

What else can she do?

Repeat this line of questioning for Illustration 29. If needed, ask, "Can the mother talk to the boy AND be on the phone at the SAME TIME?"

Picking GOOD TIMES is part of planning to reach a goal.

Can you think of a GOOD TIME to do something?

What about a NOT GOOD TIME?

Let children name as many examples as time and interest permit.



ILLUSTRATION 28 Lesson 60



ILLUSTRATION 29 Lesson 60