PROBLEM SOLVING TOOLS: FRACTIONALIZATION

By David Richardson

The Greek root analysis means "a breaking up, a loosening, releasing." That's what problem analysis tries to do—break the problem up into more manageable parts.

From Lateral Thinking (by Dr. Edward de Bono) comes a simple way to do this kind of analysis. In fact, it's something problem solvers can do when they don't know what to do next.

The technique is called FRACTIONALIZATION. It means breaking up the problem into progressively smaller and more concrete parts.

Here is how it works:

**Step 1:** State the problem as clearly as you can. Don’t worry about being wrong. If you are, the process will show this to you later.

**Step 2:** Divide this problem into TWO different sub-problems that cover the entire problem. In other words, if you solve these two problems, then the original problem is solved. Again don’t worry about making a mistake. The process will help you see the error.

**Step 3:** Divide each of these sub-problems into TWO different sub-problems that cover the entire problem. From Lateral Thinking (by Dr. Edward de Bono) comes a simple way to do this kind of analysis. In fact, it's something problem solvers can do when they don’t know what to do next.

The technique is called FRACTIONALIZATION. It means breaking up the problem into progressively smaller and more concrete parts.

Here is how it works:

**Step 1:** State the problem as clearly as you can. Don’t worry about being wrong. If you are, the process will show this to you later.

**Step 2:** Divide this problem into TWO different sub-problems that cover the entire problem. In other words, if you solve these two problems, then the original problem is solved. Again don’t worry about making a mistake. The process will help you see the error.

**Step 3:** Divide each of these sub-problems into TWO different sub-problems that cover the entire problem. From Lateral Thinking (by Dr. Edward de Bono) comes a simple way to do this kind of analysis. In fact, it's something problem solvers can do when they don’t know what to do next.

The technique is called FRACTIONALIZATION. It means breaking up the problem into progressively smaller and more concrete parts.

Here is how it works:

**Step 1:** State the problem as clearly as you can. Don’t worry about being wrong. If you are, the process will show this to you later.

**Step 2:** Divide this problem into TWO different sub-problems that cover the entire problem. In other words, if you solve these two problems, then the original problem is solved. Again don’t worry about making a mistake. The process will help you see the error.
come a Certified Nursing Assistant.

There is nothing special here in the statement. Later, the problem solver might want a slightly different definition, but this gets the process started.

Step 2 Divide Step 1’s problem into TWO separate Sub-Problems. Call them A & B.

Problem: I want to go to school to become a Certified Nursing Assistant.

Sub-Problem A: Find programs (use phone book and Internet) I could conveniently attend locally that offer CNA training leading to state certification and make a list (name, address, phone, fax, e-mail, website).

Sub-Problem B: Find a source or sources of funding that I could reasonably pay for training and certification costs.

Step 3: Divide each of Step 2’s sub-problems (A & B) into two separate set of sub-problems. Call these Branches A(1) & A(2) and Branches B(1) & B(2)

Sub-Problem A. Find programs (use phone book and Internet) I could conveniently attend locally that offer CNA training leading to state certification and make a list (name, address, phone, fax, e-mail, website).

Branch A(1) Use list to call programs to make appointments with counselors who can present the program and its requirements. Take down location, name, date and time of appointment.

Branch A(2) In addition to requesting an appointment with a counselor, ask for the school catalog of classes, requirements for acceptance, application forms, and program costs to be sent to me prior to appointment.

Sub-Problem B. Find a source or sources of funding that I could reasonably pay for training and certification costs.

Branch B(1) Use the school list of “best value” schools to contact Financial Aid at each school to make an appointment to find out about available grants, loans, and scholarships and how to apply for them.

Branch B(2) Go to Financial Aid appointments and take down or collect accurate information about getting financial support for school and related costs.

Step 3 creates a total set of four branch problems, each more specific than those from the previous steps. Going another step (Step 4) would divide this set of four branches into eight smaller twig problems, each more concrete than the previous level.

See how it works? The original problem is broken again and again into two parts. Each level becomes more specific and concrete than the previous one. In other words, the technique helps the problem solver restate the problem using a “divide and conquer” strategy. This reveals concrete steps that solve various portions of the problem until it is totally resolved.

In just the three steps illustrated, the fractionalization technique leads the problem solver to make a list of training programs. That’s a step. He then makes appointments at these training programs to get more information. That’s another step. He even finds a way to address his financial needs directly by making appointments at financial aid offices—yet another step.

That is the only way problems can be solved, by taking a series of steps. Not knowing the steps to take to resolve a challenge is a good way of stating what a problem actually is.

If you take this analysis to steps four and five without finding any actual concrete steps to take, then stop. Put those pages aside. Take a break. Then come back and perform the process again. Force yourself to define the problem differently this time. And break it up differently. Don’t worry about being right or making a mistake. You are looking for insight into specific steps to take. Keep that as your focus.

Fractionalization forces you to become more concrete and specific in addressing a problem. It is a technique to help you begin seeing the concrete steps to take that lead from puzzlement to a solution. It’s a tool that belongs in the every problem solver’s toolkit.

Why do communities nationwide annually jail two million mentally ill citizens rather than offer them medical treatment? To answer that question requires some history.

The U.S. government in the 1890s took no federal interest in mental health. That was a local responsibility, so states and local communities built asylums and used these facilities to care for the severely mentally ill. For the most part, this amounted to custodial care, which meant, at best, housing patients and seeing to their safety and physical needs.

Despite advancements in psychology at the turn of the century (e.g., Sigmund Freud, Wilhelm Wundt, and William James) most of the severely mentally ill remained beyond the healing touch of medical science. Consequently, the medical staffs of these institutions simply warehoused patients. They did not attempt cures.

Moreover, mental illness carried with it a social stigma that might affect a family’s community standing. To avoid that, families often concealed members who suffered from severe mental symptoms. Frequently, they were committed to state asylums. Unfortunately, those committed to such institutions were often forgotten and sometimes horribly abused, occasionally enduring that abuse in the name of medical treatment.

Beginning in the 1930s, for example, lobotomy (a surgery performed by cutting nerve connections in the brain) was hailed as an effective treatment for “severe” cases. The surgery was physically risky (5% mortality rate) and typically left patients intellectually and emotionally disabled. At the time, however, this was considered acceptable. In America, consequently, doctors performed many thousands of these surgeries, extending its use beyond the mentally ill to include criminals and social non-conformists. Today, however, medical historians rate the lobotomy as one of the most barbaric medical practices ever accepted as legitimate treatment.

In the 1950s, medical research developed the first generation of drugs that better managed many of the symptoms exhibited by the mentally ill. This revolutionized mental health treatment. Yet reports of abuse continued to tarnish the reputations of psychiatric institutions. In fact, lobotomies continued until 1967.

In response, an anti-psychiatric movement developed which argued that treatment in mental institutions was damaging to patients, not curing. Ken Kesey’s 1962 best-selling novel, One Flew Over the Cuckoo’s Nest, was a product of this movement. Its supporters argued for “deinstitutionalizing” mental health care, which meant closing large mental health facilities, making involuntary commitment for treatment more difficult, and transitioning mental health patients to community facilities.

President John F. Kennedy signed into law the Community Mental Health Centers Act of 1963. This legislation began to empty the centralized mental health facilities. Patients were returned to their communities with prescriptions and the hope that they would follow up with community mental health organizations. For the most part, this did not happen. Patients often had no families to care for them, so they ended up on the streets.

Homeless and lacking reliable medical care, those released from mental health institutions now faced a predictable future. When they exhibited symptoms in public, community police across the country began to arrest them and to put them in jail. Moreover, the restrictions placed on involuntary mental health commitment ensured that the population of the mentally ill on the street would only grow. More arrests followed. Some of these the courts convicted and sent to prison. Others filled the county and city jails, only to be released and then re-arrested.

Today, not much has changed. Though the aim of the 1963 legislation was to give dignity and decen-tralized care to the mentally ill, experts agree the desired transition never really happened. The result? Public policy now criminalizes mental illness, punishes people for being sick, and literally prevents them from getting necessary care.

Is this an overstatement? No! Sta-
Those who attend Re-entry Conferences will hear from criminal justice experts, community program directors, mental health professionals, and even statisticians, that unemployment and a lack of education are reliable predictors of offender recidivism. Successful re-entry programs routinely upgrade their participants’ training and work skills to help them find decent jobs. Why? It keeps them out of prison.

Is this true? Of course it is! It’s not really controversial. Getting people to listen, however, is another matter. But perhaps this study—one close to home—will get Indiana decision makers to pay attention.

For five years, the Indiana Department of Corrections followed 6561 offenders, each released in 2005 to one of the state’s metropolitan counties. Of those who did not have a high school education, nearly 56% re-offended during the study. In contrast, 31% of offenders possessing a college education re-offended. The IDOC research also correlated offender unemployment as a predictor of re-offense.

Again, this is not the only study confirming that education and employment are crucial to successful re-entry. It’s simply one from Indiana. The question to lawmakers and administrators is simply this: How many scholarly papers must academic journals publish before the Criminal Justice System gets the point. To keep dinner from burning, the cook controls the heat. That generally does the trick.

To improve offender re-entry statistics, Indiana must control the variables that predict recidivism—education and employment.

Oversimplification? Perhaps. But until Indiana provides a comprehensive and coordinated program to train and to employ the inmates that the IDOC releases each year, both the state and the counties will go on paying bills to re-adjudicate and reincarcerate those who re-offend. That’s what the statistics predict, so the costs should not come as a surprise.

But these costs are enormously expensive, and they are growing. In fact, states now regard these costs as out-of-control budget items. State-by-state, these growing expenditures explain why reducing recidivism has emerged as a national issue.

Will Indiana’s efforts to manage these costs prove successful. Only if they translate into improved offender education and employment. Those are the variables that matter. The state’s own research confirms that.

To find out if Hoosier decision makers are listening, keep observing the state’s recidivism statistics. Their direction—up or down—will provide the answer. Stay tuned.


It’s Coming:
But Indy Free Tax Prep Will See You Through for Free!

Indy Free Tax Prep is a network of Volunteer Income Tax Assistance (VITA) sites that offer free tax preparation to individuals and families with a combined household income of $64,000 or less. The VITA program, in partnership with the Internal Revenue Service (IRS), is designed to ensure that residents receive all the tax credits and deductions for which they are eligible. Volunteers are certified by the IRS to provide free, basic tax return preparation to qualified individuals.

- For a listing of cites in Marion County: http://www.uwci.org/indy-free-tax-prep-locations
BECOMING A KINGDOM MAN: A STUDY BY TONY EVANS

Beginning at its November breakfast meeting, BTB began a remarkable study authored by Rev. Tony Evans. The study is based on his book, Kingdom Man (Tyndale House, 2012).

In the very first study, Evans uses a football analogy to define the role of the Kingdom Man. He’s not a quarterback, running back, or a halfback. He is not even a team coach. Instead, he’s like the referee.

That may sound unusual, but Evans is on solid ground. The referee is not there to please the crowd or the contesting teams. Doing that would corrupt the game. Instead, he’s there to enforce the NFL Conference rules, to ensure the integrity of the game. To the degree he performs that mission, properly representing the authority of the NFL Commissioner, referees have both authority and power.

The Kingdom Man represents God and his Kingdom on earth. The rule book is the Bible. He stands for righteousness and social order; and without him, human life turns to chaos. So God’s looking for Kingdom Men, but they’re hard to find. Might you be one whom God has called to represent him on the field?

In January, BTB will present a third study, “Life of the Kingdom Man.” In this video study, Evans notes that a system of authority exists in God’s Kingdom. Christian men are under Christ’s authority and have a responsibility to fulfill. That responsibility is the Kingdom Man’s way to blessing.

But what could that be? To define the Kingdom Man’s way to blessing, Pastor Evans turns to Psalms 128. First, the scripture says “Blessed is everyone who fears the Lord.” This, Evans says, is the key to God’s blessing. That could mean “terror.” But Evans posits another definition. Fear also means to “reverence,” that is, to take God seriously, to live as if we are in God’s presence; rather than to treat God as an emergency stop when we get into trouble.

As he lives in God’s presence, the Kingdom Man begins to see God’s purpose and plan for his life. God cannot use part-time Christians. He needs Christians who will, as Paul advises in Romans 12, present their bodies as a living sacrifice—a sacrifice in all aspects of life.

“Satan does not care,” Evans says, “if you spend a few hours in church each week—just as long as you don’t carry that over into the rest of the week.” This is the Kingdom Man’s challenge. He shows his fear (or reverence) of God by walking in God’s ways day by day.

This, Pastor Evans says, is the key to God’s treasures in our lives. From Psalms 128, taking God seriously opens up specific blessings:

- He will bless your fortune (your work): “You shall eat the fruit of the labour of your hands;”
- He will bless your feelings (your emotional well-being): “you shall be happy,” and
- He will bless your future, “and it shall go well with you.”.

The blessed life is the one through which the will of God flows to touch and bless others. Such a life refuses to be squeezed into the pattern of this world’s behavior or to take God out of the equation. That life submits to God—even in the face of opposition or inconvenience. The Kingdom Man realizes that his submission is the only way to unlock God’s provisions for him—blessings in which God promises to take care of the his fortune, his feelings, and his future. Pastor Evans asks, “What better Person (than God) to go ahead of you in the job market, to go ahead of you in your emotional stability, to go ahead of you to your tomorrow and set it up for you while you are still in today?”

But God’s promise to care for our fortunes, feelings, and futures, depend upon our alignment to God’s authority. A man who is “messed up” in his alignment to God contributes problems to his family, church, city, state, country, and world. So if a man wants a better world, country, state, city, church, and family, then he must start with himself. He must take God seriously; he must become a Kingdom Man.

Evans illustrates his point with a personal story. To earn money while he was in school, Evans worked the graveyard shift at a Trailways’ terminal. He loaded and unloaded freight and packages. It was an important job for him at the time.

But his faith seemed to put this job in jeopardy. Employees had a “system” of avoiding work: on a schedule, some employees slept while others signed in for them. When Evans was assigned his time, he refused to cooperate, because he was a Christian. That caused problems for him among his coworkers.

One day, he was called to the office. The company knew about the employees’ “system” and also knew that Evans wasn’t part of it. His job was preserved, and he was promoted to supervisor. Evans was very thankful that day for the blessing that comes from taking God seriously. It’s the blessing God offers to all Kingdom Men.

Summary by David Richardson
In October of 2016, the National Alliance on Mental Illness observed,

“In a mental health crisis, people are more likely to encounter police than get medical help. As a result, 2 million people with mental illness are booked into jails each year. Nearly 15% of men and 30% of women booked into jails have a serious mental health condition.”

Two years prior, the Treatment Advocacy Center estimated that 20% of those in jail and 15% of those in state prisons suffered from serious mental illness. Earlier Bureau of Justice Statistics report similar findings.

Reasonable people recognize that punishing cancer patients for having that disease is pointless and barbaric. When it comes to mental illness, however, public policy decisions have required the criminal justice system to do precisely that. But treating the mentally ill as criminals will not make them better. Booking two million mentally ill people into community jails each year simply misuses the criminal justice system. It also callously ignores the real needs of vulnerable citizens and conceals as criminality their desperate need for medical treatment.

No one should regard this as enlightened leadership. Irrational policies do not become more reasonable by doubling down on their use. Their routine employment, however, can make people indifferent. That invites disaster and explains why communities nationwide jail so many of their mentally ill citizens. It has become an unreasoning routine.

And that raises a question: Who is in charge of public policy addressing this issue? Apparently, reasonable people have little to do with it.

"Treating the mentally ill as criminals will not make them better.”

**SOURCES:**


---

**JOB FAIR #1. THU, FEBRUARY 16 / 2017 REGISTER (IT'S FREE)**

**Indianapolis Career Fair February 16, 2017**

11:00 am – 2:00 pm

Sheraton Indianapolis City Centre

31 W Ohio St.

Indianapolis, IN 46204

http://www.nationalcareerfairs.com/career-fairs/indianapolis-career-fairs/

---

**JOB FAIR #2. WED, FEBRUARY 22 / 2017 REGISTER (IT'S FREE)**

**Indianapolis Job Fair February 22, 2017**

11:00 am – 2:00 pm

Embassy Suites by Hilton Indianapolis North

3912 Vincennes Road

Indianapolis, IN 46268

https://www.eventbrite.com/e/indianapolis-job-fair-february-22nd-11am-2pm-find-
DRUGS & HOMICIDE: 
*Indy’s Growth Industry*

Indianapolis saw 144 murders by 2015’s end—a record. Homicides are up 10% in 2016. So the city may score a new record by the end of December. The reason? Booming illicit drug sales. Homicides and drugs have seemingly merged to become Indy’s new growth industry.

Heroine has made a comeback since dealers began cutting it with Fentanyl, an addictive, synthetic, pain-killing opioid. The combo has caused death nationwide. It’s now in Indianapolis. It’s a major concern of health-care professionals and police.

It’s a lethal addition to familiar standbys (ecstasy, cocaine methamphetamine, tryptamine, phenethylamine, and prescription opioids, etc). But the heroine-fentanyl mixture is gaining popularity because it’s cheap and potent. Overdose victims, unfortunately, discover its lethality too late.

Indianapolis is centrally located in the Midwest. Its interstate system is perfect for the transport of products nationwide. That, of course, includes drugs.

Drug gangs have recognized the utility of the city’s central location. More and more, the IPD must now contend with well organized and well armed drug gangs. It’s the Chicago disease spreading its brutal, urban culture to Indianapolis—drive-by shootings and hopeless drug addiction. Rejecting that culture will test the city’s leadership and the city’s very soul.

**SOURCES:**


**An Examination of Prison Animal Programs**

Prison Animal Programs (PAPs) are rehabilitation initiatives that employ animals, typically dogs or cats, to inspire participants to respect, care for, and love other living creatures. The idea is to facilitate in participants an empathy and responsibility that will transfer to their communities and to their human relationships. Ultimately, it seeks to cut recidivism.

PAPs have become popular throughout the country. The *Indiana Department of Corrections* runs several (e.g., the programs at Michigan City, Pendleton, Rockville, and Westville). But researchers have questioned whether such programs actually help inmates and prisons (e.g., Furst, 2006; Strimple, 2003)?

Amy Brown and her research team attempt to answer this question in a recent paper. Over a ten month period, they collected data from the *Indiana Department of Corrections* (IDOC), comparing statistics from Indiana prisons having PAPs with those that don’t.

Brown’s research confirms that prisons with PAPs show a measurable benefit in such things as staffing, security, and disciplinary problems. Consequently, prisons do benefit from animal care programs. Brown recommends, however, additional research on recidivism rates for inmates released from prisons having active PAPs. Results from such studies would provide a significant measure of how effective these programs are in inmate rehabilitation.

**FAST FACTS: 
*Heroin Addiction***

- The word “addict” comes from the Latin past participle *addictus*, a verb meaning to ‘devote or surrender’. As a reward for performance in battle, Roman soldiers received slaves. These slaves were called “addicts”!
- Most people who take heroin will become addicted within 12 weeks of consistent use.
- Two of the most common long-term effects of heroin addiction are liver failure and heart disease.
- Despite the euphoria it gives, heroin is a depressant. It can kill by making the body forget to breath.
- Heroin withdrawal occurs within a few hours of its last use. Symptoms include diarrhea, insomnia, vomiting, cold flashes, and painful bone and muscle pain.
- Approximately 3% of high school seniors say they have tried heroin at least once in the past year. Many of them will try the drug for the first time on school grounds.
- Narcan™ (naloxone) is a heroin and general opiate antidote. It can be injected into muscle or sprayed into the nasal cavity. IPD officers carry injectors.

**SOURCES:**

- https://originofwords.quora.com/Addict-aka-Slave

Along the Watchtowers

News Stories

Written by David Richardson
Do you have school-aged children? Then you worry about their welfare and their futures. School absenteeism may not be high on your list of concerns, but educators want you to take another look. It’s more important than most parents realize.

As it turns out, the 1986 comedy, Ferris Bueller’s Day Off, (starring Matthew Broderick) portrays behavior (school absenteeism) that researchers don’t think is funny. In fact, their statistics reveal it as a threat to communities and to young people’s futures. No joke! The federal Department of Education (DOE) considers it a national threat. It’s serious business.

The federal DOE has released a new analysis showing that chronic absenteeism affects 13% of all U. S. students. In other words, more than 6 students out of every 50 miss school repeatedly. Moreover, their repeated absences put these students at risk of never finishing high school.

This study compiles the first comprehensive data ever collected nationally on this issue. In summary, it reports that six million public school students miss two weeks or more of class each year. The study’s statistics show that absenteeism affects all regions of the county, all races, and even children with disabilities.

Secretary of Education, John G. King Jr., says that chronic absenteeism is a national problem—one that produces poor literacy skills and school dropouts. This, of course, creates barriers to more advanced education and well-paying careers. It puts a significant portion of the next generation at risk.

According to another study published by the University of Chicago (2013), children who are chronically absent in preschool, kindergarten, and first grade are much less likely to read at grade level by the third grade. Students who cannot read at grade level by the end of third grade are four times more likely than proficient readers to drop out of high school. Consequently, irregular school attendance can be a better predictor of whether students drop out of school than most other characteristics that educators measure.

At the University of Utah, statistics gathered by the Utah Data Alliance in 2012 support this claim. Researchers tracked chronically absent students over time. The table below summarizes the results.

Without absenteeism, the dropout rate is about 10%. After the first year of chronic absenteeism, the rate increases to over 36%. An additional year of chronic absenteeism correlates to a dropout rate exceeding 50%. This establishes a strong connection between the behavior of chronic absenteeism and dropping out of school—a connection that only gets stronger with time.

According to the Justice Policy Institute (2007), dropping out of school is not only associated with frequent school absenteeism. It’s also associated with poor outcomes in later life, including poverty, poor health, and involvement in the criminal justice system.

That’s why Attendance Works, a state and national initiative that promotes public awareness on this issue, has sponsored media campaigns, organized community events, and produced informational videos. What the character, Ferris Bueller, portrayed on the screen as a humorous youthful adventure can have serious and lasting consequences in real life. For the sake of their children’s futures, Attendance Works wants parents to know.

Visit the website:
http://www.attendanceworks.org/

SOURCES:
http://www2.ed.gov/datastory/chronicabsenteeism.html?src=pr
http://www.justicepolicy.org/images/upload/07-08_rep_educationandpublicsafety_ps-ac.pdf
Chronic absenteeism may prevent children from reaching early learning milestones.

Watchmen on the Bridge
A BTB Media Publication
Editor: David Richardson
Newsletter Design: Rose Richardson
March 2016