

Draft

Presentation to Educational Leadership and Dr. Linda Lane, PPS Superintendent

By Mark Rauterkus, swim and waterpolo coach for Neighborhood Learning Alliance.

Mark@Rauterkus.com, 412-298-3432 = cell. <http://Rauterkus.blogspot.com>

After joining in an educational conference call, I wrote this article.

An endeavor calling for an overhaul and a ten-fold expansion in high-quality aquatics in times of budget cutbacks is possible because we use what we already got. Simply, use what we have and deliver what Pittsburgh kids need.

We have massive problems that are pressing hard against the Pittsburgh community. We've got

- violence,
- academic achievement gaps,
- obesity,
- so-called school reform trends with doubtful standards and accountability, and
- sustained cutbacks that have lasted for a decade and continue to grow.

The best news is we have everything we need. We have:

- swim pools,
- support of nonprofits,
- proof of concepts with astounding success,
- volunteerism,
- a defined, documented vision with specific plans, and
- political will.

We must do what is best for the kids given these tough times of both

- budget cuts, and
- educational reform.

I think this aquatics overhaul for Pittsburgh delivers what the kids need and is the right thing to do.

Time to play

One aim is to defend children's right to play, grow, and learn in an era of school reform with so-called standards and accountability.

Music, physical education, and even outdoor recess has contracted greatly. Cuts within schools, the city and at social service agencies has changed things for kids.

Pittsburgh used to have many "language magnet schools" introducing foreign vocabulary words in Kindergarten settings.

Pittsburgh kids used to get string instruments in the third grade. Gone.

Pittsburgh's, city-wide, "Centers," classes for arts and music that was held on Saturdays at CAPA is no more.

Gone: It isn't safe to have the kids playing pick-up ball on the streets or in the parks like 'back in the day.' These are different times. Today's kids spend more time with TVs and video games.

This endeavor asks Pittsburgh's Mayor Ravenstahl and PPS Superintendent Doctor Lane to join with the citizens and promote play-based early education and common-sense policy making. We can push back for the sake of kids by standing with some others in this fight, including:

- [Alliance for Childhood](#),
- Teachers Resisting Unhealthy Children's Entertainment ([TRUCE](#)),
- [Campaign for a Commercial-Free Childhood](#),
- Concerned Educators Allied for a Safe Environment ([CEASE](#)), and
- Defending the Early Years Project.
- Hundreds of educators who issued a statement of concern about alarming Common Core Standards for the early grades.
http://www.edweek.org/media/joint_statement_on_core_standards.pdf.

The mayor and the school superintendent must ask, 'What are the kids not getting?'

NEGATIVE Forces:

A dark side of reform scares many parents and educators. A 'reform overdose' can generate 'deformed outcomes.' Those on the dark side, an evil empire if you will, would rather build prisons than invest in educational programs.

The push to inappropriate standardized testing is happening. State standards for young children have led to the heavy use of standardized tests in kindergarten and the lower grades, despite their unreliability for assessing children under age eight. The current proposals from the evil empire (National Governors Association and the Council of Chief State School Officers) goes well beyond most existing state standards in requiring. An absurd example: Every kindergartner be able to write "all upper- and lowercase letters" and "read with sufficient accuracy and fluency to support comprehension."

It is evil to intensify inappropriate testing in place of broader observational assessments that better serve young children's needs. New research is showing that didactic instruction of discrete reading and math skills has already pushed play-based learning out of many kindergartens. Blocks and dress-up corners in many kindergarten classrooms are getting replaced by desks and worksheets.

Didactic instruction and testing in schools is moving to crowd out other important areas of learning. Overuse of didactic instruction and testing cuts off children's initiative, curiosity, and imagination, limiting their later engagement in school and the workplace, not to mention responsible citizenship. And, it interferes with the growth of healthy bodies and essential sensory and motor skills—all best developed through playful and active hands-on learning.

The evil educational reform standards are superficial. Counting to 100 by 10 is rote. We seek conceptual knowledge, not superficial skill sets. Some adults seem to be with more comfortable seeing kids in chairs being neat. Rather, making a mess and then doing the clean up should be a part of the play and learning too.

There is little evidence that the evil-standards for children lead to later success. While an introduction to books in early childhood is vital, research on the links between the intensive teaching of discrete reading skills in kindergarten and later success is inconclusive at best. Many of the countries with top-performing high-school students do not begin formal schooling until age six or seven. The evil efforts conflict with cognitive science, neuroscience, child development, and early childhood education about how young children learn, what they need to learn, and how best to teach them.

Groups of educators have called on the National Governors Association and the Council of Chief State School Officers to suspend the drafting of standards for children in kindergarten through grade three.

A new wave of testing is washing over preschool activities in a bad way. It has become fashionable to give lip service to the importance of play. The reality: Play continues to disappear in many schools, even for the youngest.

Learning must go beyond literacy and math. Children need to learn lots. Our kids need to learn how to play well with others, how to swim, how to listen and interact with a coach. They need to learn about getting fit, how to follow a schedule, how to pace, race, finish and score. They need to know how to be defensive, aggressive, and offensive. They need to understand sportsmanship, running, time trials and car pools. As our kids learn all the above, the literacy and the math becomes a breeze.

The Winning Swimming Rookie Camp geared to those age seven teaches with a coaching voice that can resonate within families and communities. Swimmers take on challenges. Swimmers develop social, emotional, problem-solving, self-regulation, and perspective-taking skills. Rookie Camp Swimming is good for young children.

Kids learn mighty lessons through their bodies and senses and with self expression. Kids need to have experiences where learning happens in three dimensional spaces. This is Rookie Camp. Just entering

the swim pool, especially on winter days, gives total immersion. Natural ways of learning happens in the water. The swim pool is a learning laboratory unlike what may be happening in rigid classrooms where there are rules against running and other expressions of enthusiasm.

The swim team setting with Rookie Camp amps up the typical swim lessons. The Rookie Camp delivers bigger, bolder, better benefits and with buzz. Sure, everyone still learns how to swim. To swim is good, but to be a swimmer changes character. Another illustration is a music lesson where a kid picks up a violin and begins to play twinkle. Beginning violin lessons are to swim lessons as being in the midst of an orchestra is to Swimming Rookie Camp.

All learn, but especially young children, by being with others who are more experienced and older. The Rookie Camps' daily dry-land times have story-time visits with guest coaches that include middle school and high school swimmers. Kids learn by placing themselves in the shoes of others. Rookie Camp swimmers learn social awareness, how to care, how to solve problems together, and how to negotiate together.

Swim teachers are keen observers of children. Coaches pay attention to where the students are. Aquatic teachers work on what they see that the kids are able to understand. At the swim pool, we model, evaluate and give fresh beginnings to kids in new surroundings. Plus, kids have time to play and act it out at the pool.

Rookie Camp serves plenty of opportunities for self regulation for kids. Kids get into roles, and they control themselves. They stay in their character and learn self control. Rookie Camp is for learning many concepts and become comfortable with each other.

Scaffolding, inventing from each other, demonstrations, teamwork coaching, making rule-based games and playing them are serious happenings. Seldom are children allowed to have outdoor discovery time with low structures. Rare are the chances for kids today to organize their settings. But that happens at swim practices as kids pick their own lanes, make up lane orders and choose to play goalie or not. Kids used to roam absent of TV and video games. In hours beyond the regimented school day, we need to bump kids away from screens and get them to play together.

Sitting passive before a screen weakens the capacity to imagine and have inventiveness for oneself. We don't know what damages are being done as our children don't discover their own sense of self. Today's kids are too often looking outside of themselves to be entertained with apps and screens. Rather, in Pittsburgh lets allow the stories and the creative ideas to come from within. So much of life today is with virtual reality. A corporate evil looms large. Advertisers want passive viewers before a screen. Many are shocked and saddened with the huge war brewing in education about play and creativity. The evil policy in early childhood is being set by business-people values and test companies, not sound research.

Numbers

Play situations, true number concepts, classifications and serialization forms the basis of being able to understand the concept of number.

Classroom sizes used to hover around 20 students. In 2012, PPS contracts swelled physical education classroom sizes for high school students to 44 students per class with one teacher. Best practices in swimming, especially with seven-year athletes, won't allow those inflated numbers. The Rookie Camp can give more attention to more kids with more coaches than is possible these days in our public school classrooms.

It takes a long time for children to come to understand symbols. We rush children, and if they don't understand right away, we start to think that they are different. The difference between “d” and “b” might be maturity. Consider how math is detached in the mind of a four-year-old who is shown a card that reads:

$(3 + 1 = ?)$

Inappropriate demands such as that are coming to young children from assessments in schools at the age of 4.

Kids are intrigued by things that they are interested in. Then they ask about things that are harder to understand, if we follow their interests. What is this? How is this? These things are passions and serve as openings to more knowledge. Rookie Camp Swimming is a choice. Swimming gets to become a giant gateway to good, thoughtful debate. Fans are fanatical. We'll make swim and sports fans. We'll discover, discuss and clash among our favorites. Is it Phelps or Lochte? Why does that work for him? And, can it work for you too? We'll certainly watch and re-watch the Olympics and cheer.

Bogus testing is unreliable at young ages. For example: One test given to five-year-olds asks (if not hammers) the young kids to identify a maximum number of letters in one-minute-of-time. That's puzzling. Wee kids do not know how to race yet. Swim coaches know it is crazy to get five-year-olds to race. Rather, get a five year old to float and bounce on the bottom at the shallow end of the pool. Then join the Rookie Camp at age seven. Then we are sure to be staging some great races by age 8. After kids know how to race, then identification tests in time periods become meaningful.

Seemingly, the lowest, most scripted curriculum and drill-based testing is headed to the poorest parts of our society. Drill-based teaching is at odds with what happens at the Waldorf Schools. Wealthy families and the well-to-do-and-privileged emphasize that no child is like any other child. They all grow. Kids don't touch reading in the Waldorf system until they are seven. Likewise, in Finland, they don't teach reading until age seven. Kids learn to read at later ages in Finland, but by third grade, those in Finland are ahead of where the American kids are in reading. What happens in the PPS school day is up to the school board and school administrators to decide – and not some blogging swim coach. However, what happens at the public pools is up to taxpayers, advocates and professional swim coaches to influence. We must insure that the public pools are used for holistic instruction by the entire community – rich and poor alike.

Language development occurs meaningfully through play.

Rookie Camp participants often learn more than 10 words a day. Drills like 'catch-up' (one arm catches up to the other arm in the freestyle stroke) are described and done. In the stroke drill called catch-up, hands have to touch together, and the coach jokes that mustard and ketchup are not allowed in this

pool. Swimming opens a glossary of meaningful interactions with language, especially in the “A for Athlete” project for older kids. Children learn to speak the language that surround them.

The achievement gap is not a distraction in the middle of the deep end.

Swimming presents an equal opportunity for all kids. Needs are few: a swim suit and a pair of goggles. Both are affordable items and they can be provided as necessary. Some of the poorest kids are the most independent. The poorest kids can be very confident and gracious and with higher level of problem solving. At Rookie Camp, we won't knock that out of them. The expression, “I can't do that,” gets replaced with, “I'll try.”

Concrete manipulatives hatch math wizards on the swim team.

Attitudes toward mathematics are improved when students have instruction with concrete materials provided by teachers knowledgeable about their use. Manipulative use increases scores on retention and problem solving tests. Attitudes toward mathematics are improved when students have instruction with concrete materials provided by teachers knowledgeable about their use.

Swimming gets students to use manipulatives, a central mathematics concept. Kids and classes that have great grasps of manipulatives outperform those who do not. This benefit holds across grade levels, ability levels, and topics. Many manipulative "makes sense" for swimmers.

Below is an example of one simple swim practice set that Rookie Campers would master:

Swim: 10 (repetitions) x 50 yards on 1:30 interval.

That common building block for a swim practice has shorthand too: 10 x 50s @ 1:30. I've published books filled with pages of workout numbers and formulas. (*Tide Teamwork, SprintSalo, A DAM Good Year, Coaching the Young Swimmer, Organizing Swimming Practices*)

Swimming presents a myriad of ways to get young people to learn through play and active experiences. Swimming in a holistic program makes meaningful and engaged learning. Swimming makes a giant contrast with the more superficial, mechanical learning that has been the trend in schools. Testing and some realms have disjointed implications. Swimming can't be disjointed, really. Swimming at age seven is about being joined in a fun way.

Swimming coaches emphasize learning with understanding. Swimming instructions from the coach to the team give the young athletes new vocabulary richness with actions and experiences. Swimming coaches blab a foreign yet fun lingo packed with numbers, standards, records, zones, cuts, thresholds, qualifiers, sets, repeats, intervals, decimals, times (in tenths and hundreds of seconds to minutes, plus days, weeks and months). Coaches give kids descending, contrasting, tempo and intensity instructions. Expectations with heart rates help with self understandings and healthy awareness, but also make clear to the kids the difference between 55, 65 and 75 in beats per minute/BPM or in weight or in distance in meters.

Constructs and manipulatives jazz the swimming experience and makes more fertile ground for academic scholarship. An age-seven swimming team experience gives individuals an arsenal of

transferable skills. The benefits are countless when one examines the collective impact with the families, car pools, lane leaders, team buddies, training groups, coaching staffs, junior assistants, volunteers, boosters and various institutional elements of support.

Swimming makes a new setting for young minds to absorb different, meaningful elements. Sadly, some students sometimes learn to use manipulatives only in a rote manner. They perform the correct steps, but have learned little. Daily encounters with the swim coach forces kids out of their comfort zones and beyond rote manner manipulatives. Swimming gets kids to live among numbers and be the agent of change to move their realm of being. As things click at the pool, that clicking cascades elsewhere. And for the faster swimmers who get it, the stop watch clicks sooner as they pick up speed, earn praise and grow.

Some day, PPS teachers may come to use swimming and sports manipulatives as an extra pathway for mathematics teaching. Swimming talk can pour into the classrooms as teachers reflect on their use of representations of mathematical ideas with students who swim. Aspects of their instruction can change when the classrooms are filled with swimmers. Not only are the kids knowing their numbers in an intimate way, but their bodies are settled, relaxed and defused from the prior exertion of yesterday's workout and its twenty-five twenty-fives on twenty five.* That's my favorite set (25 x 25s @ :25) as a coach at swim practice. We visit that with my teams about once a month. Each kid swims 25 times the distance of 25 yards on an interval of 25-seconds.

Reform in mathematics education indicates that "concrete" is good and "abstract" is bad. Swimming bridges the nasty "abstract" which is much more difficult for the wee ones to understand to the good and familiar side of the river. Students that swim get a wide range of understandings and tools.

Research suggest that instruction begin "concretely," it also warns that in-school-teaching of manipulatives are not sufficient to guarantee meaningful learning. Kids need swim teams for benefits of both play and brain-developmental homework.

To understand the role of concrete manipulatives and any concrete-to-abstract pedagogical sequence, we must further define what we mean by "concrete." Most practitioners and researchers argue that manipulatives are effective because they are concrete. By "concrete," they probably mean objects that students can grasp with their hands. This sensory nature ostensibly makes manipulatives "real," connected with one's intuitively meaningful personal self, and therefore helpful.

Swimming gets students to make connections between manipulatives and nascent ideas. Consider the classic "number line" that helps kids perform addition and the students' external actions on an abacus. At the pool, the number line comes to play as the team does an intra-squad match with bodies wearing numbered waterpolo caps. Or, the mental activity of counting by using the lane-line beads keeps everyone in the water straight as to the number of repeats completed.

Swimmers reflect on their actions with manipulatives with team meetings. Although manipulatives have an important place in learning, their physicality does not carry the meaning of the mathematical idea. Teams need teachers and coaches who can reflect on their students' representations for mathematical ideas and help them develop increasing sophisticated and mathematical representations. "Although kinesthetic experience can enhance perception and thinking, understanding does not travel through the fingertips and up the arm."

The Rookie Camp model is going to deliver mini lessons with videos to be often delivered with teleconference right at the poolside. We connect the team, standing or sitting on kick boards often dripping wet, with expert coaches at other sites to recap lessons. Often, other kids are in on the interaction. We connect the dots and we connect the sites as well.

Further, when we speak of concrete understanding, we are not always referring to physical objects and just to the swimmers at age seven. Benefits continue with swimming for the ones in the later grades. Science fair projects, swimmers think-a-thons and postal swim meets are a few of the middle-year activities we hope to promote in a dynamic, smart, aquatics program.

In higher grades, biology, physics and kinesiology all offer great sport-specific examples of concrete manipulatives. Swimming provides a ton of Sensory-Concrete knowledge for an entire academic career, if desired. But as the kids mature, the other sports often call and swimming has made them stronger physically, socially and academically.

Road trips

Travel, geography, and cross-cultural elements are injected as we go about town, the region and even farther for meets.

- In 2012 more than 20 Stingray swimmers went to a meet in DC.
- Grant Rauterkus, a PPS 8th grader, went to a national waterpolo camp in Colorado Springs and played with kids from Chico, California, and had a roommate from Connecticut.

Swimming's Springboard

As a programming vision, our coaches are thrilled as the kids grow into other athletic pursuits after being on the swim team for a while. The bulk of our squad has to be present as a wide base. The Rookie Camps for seven-year-olds is a springboard to other things yet to come. To keep the individuals engaged in aquatics year-to-year, we introduce and allow specializations with waterpolo, nippers, lifeguarding, underwater hockey, triathlons, cycling, syncro, modern pentathlon and kayaking. These other journeys are still within the Pittsburgh aquatics landscape that must be part of the global overhaul. We must press forward with other budding programming challenges for the sake of capacity so that the 750 7-year-old swimmers in our program in 2013 have other valued activities in 2014 and beyond.

Aquatics can catapult athletes to other sports. Baseball, basketball, football, golf, cross-country, hockey, to name a few, would benefit greatly as confident participants join their ranks already aware of sportsmanships and good team and coach behaviors. Plus, life offers countless pursuits beyond sports too: music, theater, dance, outdoors. All in all, the Rookie Camp experience needs to be a bedrock for whatever else is to come in life in public spaces, parks and schools. Swimming can be the model to set the stage for the theme of “plays well with others.”

Summary

It is fine to survey teachers, program directors, and child development experts. It is fine to speak out with well-reasoned arguments against inappropriate standards, assessments, and classroom practices. It is fine to protest a governor's visit to demand more educational funding. However, it is much better to just fix the problem. Fix the problem, not the blame. Let's provide Pittsburgh kids with a competitive swim team experience (Winning Swimming Rookie Camp) that is rich with play and promotes appropriate activities for childhood times while costing little to accomplish.

Hogwash? Swimming builds stamina to assist kids so that they are better able to focus on the long hours of instruction in literacy and math.

Citiparks Summary

Healthy environments for youngsters must be developmentally appropriate. Padded ground-surfaces under swings, play structures for climbing, free lunch programs and even the newer spray parks are fine amenities for tykes. A free week of swim lessons and an afternoon encounter with the art cart is fun. Taking a dip on a hot summer day at the local public pool with friends is refreshing.

But the Rookie Swim Camps take developmentally appropriate healthy environments to a new level. The Rookie Swim Camps further root kids to community along a course of an engaged life within Pittsburgh's public spaces. The enormity of the Rookie Swim Camps, and what spawns from them as children grow, should impact thousands every year. The Rookie Swim Camps and “playing well with others” is what's needed next in the struggle to reverse the migration out of the city, the academic achievement gap and youth violence.