

## Interest-Driven Learning

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### **What Does It Mean?**

Interest-driven learning means learning to do something because you need it in order to do what you want to do. It's that simple. It means learning to read because you love to discover new things through your reading, or solve problems that are important to you that require you to read for information, or from creating your own mental pictures of a fantasy world which especially intrigues you. It means learning to write because you need to write if you want to share your ideas, hopes, dreams with someone who matters to you who is far away. It means learning - creating - your own unique problem-solving strategies because you want to do something that is not just straightforward and simple.

### **The Best Example**

The classic example of interest-driven learning is teaching yourself as a baby to speak the language of the people who take care of you, to assure you will be able to request food, love, and assistance in doing things you want to do (like finding out everything there is to know about everything)

### **Simple Concept, Yet Complicated to Put into Practice**

It's that simple...and that complicated - at least it's complicated for a great teacher to make it happen in a school setting, with just the one teacher and 30 students - all of whom need varying amounts of personal attention. So this is - and has always been - the quandary of dedicated educators: how to make that natural learning process take place under their nurturance, for as many of their students as possible.

### **Education Now Too Much a Normalizing Process - Here's an Alternative**

A major problem, however, is that education has become much too much a normalizing process, with a scope and sequence of activities that is designed to "get across" basic skills that could be created by students under their own power. If the teacher could just guide each student to engage in a series of personally-relevant, interest-driving activities - in place of the restrictive, boring and often irrelevant structured series of lessons that is suggested or required by the school systems where the teachers work, students would create their own knowledge - or, better yet, they would create their own knowledge-generating and personal productivity systems: reading, writing, arithmetic, algebra, geometry, etc., all focused at the center of their individual life needs, all empowering them to do things they need to / want to / feel they must do.

Why should childhood be a time to be pumped full of knowledge about things that are deemed important by adults, with the times and places for this learning likewise determined by adults. Much, much more is always learned when the learner is seeking to answer her own questions, solve his own problems, create her own literary masterpieces, write his thoughts down to be shared with others not present in the same space or time, write her own songs, compose his own poetry, impress her peers with her knowledge and expertise in an arena of value to the peer culture, etc.

It is my contention, as yet only preliminarily proven in a school arena, that all of the subjects we consider "required" curriculum arenas will be learned by every child who is given total support in the entrepreneurial investigation of her interests, and encouragement to explore all avenues of intersection of psychology, history, politics, economics, geography, mathematics, physics, chemistry, etc. with his interests.

### **The Business of Teachers**

Teachers would be in the challenging new business of talking with and listening to students, to discover their arenas of interest and strength. From this dialogue, teachers would keep an ongoing tab on crucial interest and strength information about each student. Using that knowledge base, teachers would suggest and support activities such as letter writing, book writing, illustrating and publishing, development of entrepreneurial business plans, play writing, songwriting, research on areas of interest aimed toward sharing expert knowledge with others of similar interests. Note that these types of student activities parallel all the things committed, engaged adults do when they strive to master a field, perform services within that field, and share the results of their efforts with those who will benefit from their expertise.

A typical school day for a teacher working in such a classroom will consist of conferencing with individuals, pairs and groups of students working on projects of their own choosing within a world of exploration and productivity the teacher has created for them. The teacher will be a reference point for children eagerly engaged in seeking information, writing, performing, speaking publicly about skateboarding, geology of continental plate fault lines, the history of Barbie dolls, rock music's beginnings in the 50s...whatever grabs them. Teacher must of course prime the pump at first, but eventually, children operating in such an exciting learning environment will become to a great extent self-starters. Teachers will continue to offer presentations, chosen on the basis of perceived student interests, but children will not be required to attend any presentation, as long as they are occupied on a project that is more interesting to them. That will be the one requirement: that each child at all times be involved in some project, solo or in a group, that involves somehow an eventual product to be shared with someone else. The wonderful thing for teachers of the '90s is that school-based microcomputers allow much more of these types of activities to actually take place in classrooms - mostly because of word processing, databases, and well-crafted simulation software packages. Video media are also extremely helpful (at least one class camcorder, for example), since students could always have the option to view presentations later if their current work kept them engaged and they found out later they wished they had attended a presentation that received

rave reviews from others. An ideal arena for "image literacy" is the intersection of computer and video, where the computer terminal is interfaced with the video playback medium (either tape cassette or disk) so that the students can include their own video production images in their computer-based products. The HyperCard and LinkWay software arenas on the Macintosh and IBM computers, respectively, give their users control over this type of image writing, with only a very short time commitment required to learn to create presentations. Of course, this is all predicated on the availability of computers, appropriate software and video media.

### **Differences in Outcomes and Process: Curriculum vs. Interest-Driven Learning.**

The major difference between interest-driven learning and traditional curriculum-driven learning is that the learner is central, rather than the subject matter. The subject matter - whether reading, writing, mathematics, history, physics, or whatever - is still mastered by the learner, but because it is a path toward a personal goal, not because it is a required course at school.

But in order for such a learner-centered approach to work, teachers must have both solid self-confidence in their ability to be flexible leaders in the students' search for knowledge and creative avenues for self-expression, a definite sense that what they're up to - creating an unending sequence of interest-driven learning arenas for their students - will work, and access

to enormous amounts of information and considerable support in their efforts, from other colleagues (especially administration), as well as from technology.

Since they no longer have the comfort of a textbook, with its required readings, sequence, and exercises, and since the arenas for learning and productivity are expanded to include everything that might be interesting to the learners, the teachers must be quite comfortable with all of the tools they will need to offer to their students: word processing, data-base construction, image-processing (involving the lowest levels of computer programming, to control where and when the images appear in a presentation), and access to major data sources. This latter is possibly the most important. The teacher in the interest-driven learning classroom must spend her/his "textbook" budget on magazines, books, and print/video data-base searches that will provide each of the learners with access to information in their interest arenas.

### **So, Is This All Viable Now?**

Is it really possible that such an approach to public education is currently viable?

Obviously the ideal situation is still very much a dream in too many public schools, but armed with the basic concept of interest-driven learning - that students will learn basic content or process skills best if they need those skills to do something they very much want to do - every teacher can begin to make at least some interest-driven learning available to students. For one thing, there is such a thing as child culture. With a minimal knowledge of what matters most in child culture, a dedicated teacher can push the presentations, the arenas offered for learning efforts, in the direction that will interest a great majority of the students. Allowing, rather than encouraging learners to read, research, write, and share with others about skateboarding and Barbie Dolls will produce far better results, far more dedicated students than forcing them to read, write, and share with others about less interesting topics, even if they are readily available with all supporting materials, criterion-referenced testing, etc. Avoiding the trap of the nicely packaged scope and sequence curriculum is the first step toward a liberated interest-driven learning process.

### **Appendix: Examples of Interest Driven Learning**

The following are a number of examples of environments we have created for interest-driven learning in school and clinical settings.

#### **"Teacher, Can I Stay In During Recess?":The Amazing Power of Interactive Fiction**

In the spring of 1986, at King Intermediate School in Hawai'i, we gave four seventh grade classes the chance to work through Mystery at Pinecrest Manor. First we introduced the hard words (Archaeologist, Egyptian, etc.) in a pre-adventuring session, then we sent the kids to the computers in four person adventuring groups: one reader, one keyboarder, one recorder for clues gathered as the group investigates all around good old Pinecrest Manor, and one recorder for incriminating evidence gathered from each of the suspects. (It turns out even Uncle Ralph could have been the one! He had a heck of a lot of insurance on his priceless Egyptian statue, stolen during the night.)

The kids just had a ball. One boy asked his teacher if it was okay to stay in during recess to continue working on the program - this from a rough kid who hated school. Even when several groups solved the mystery, the others were so motivated that they kept on reading, discussing, writing clues, and generally sleuthing until they came to their own conclusion, and could tell the program not just who the culprit was, but where the statue was hidden.

After all groups had finished, about the fourth or fifth language arts class in the adventuring unit, we got everybody together and brainstormed our way through the adventure, discussing first the introductory situation, with a review of all the characters and lots of adjectives

describing each character, then the plot, and finally the resolution. That took a full period, and the master teacher wrote all of the kids' contributions on flip charts. The second review session, we took them through an outlining process, boiling all their words down to a neat outline. In pairs, the kids went to the computers and created outlines, using old Bank Street Writer. They were very proud of their printouts, their first word-processed products, nicely printed out by the printer - a clean written product! We had them make one copy for each partner, and it should be mentioned here that one of the important aspects of the success of this unit was the availability of five computers and two printers, with no class larger than ten or eleven children - they all had a chance to write, in turns, right after the brainstorm on the outline.

Our next step was another brainstorm - outline sequence, but this time, we had the pairs create their own mysteries. Some came up with "Miami Vice" type adventures, some with more personal ghost stories, but each pair created their own product. I believe this was an extremely important part of the entire unit: to be able to use the computer, which had for the first time in their lives given them the chance to have fun during a reading lesson, as a tool to produce a creative writing product!

One of my colleagues, state special education computer resource teacher for our department of education, Marcia Jenkins, has worked with the King Intermediate special education department since our initial reading-writing unit to put the kids in contact with other kids across the state and the country with her "Hawai'iKids" project on SpecialNet. The children have been able to continue and expand their reading and writing horizons, in classic interest-driven learning experiences, using the written language for their own purposes: to communicate with electronic pen pals.

The last I heard, over 50% of the children in our original group were out of special ed language arts classes, doing very nicely back in the mainstream. The only problem, which I heard from one of my students teaching in the high school fed by King Intermediate, is that the King kids were frustrated at the lack of sufficient computer time in their new regular ed classes! It looks like we have a big job ahead of us! All of our students, special ed, ESL, regular ed, deserve to have the delightful new reading curriculum offered by good interactive fiction!!!

### **Some Not-So-Clinical Case Studies: Carefully-Presented Computer Tools Change Lives**

After working with children and adults with disabilities for six and a half years now, trying out my ideas of matching interest-driving computer software and hardware and peripherals with people who need them, I have seen some remarkable things.

#### **Word Processing Liberates 29-Year-Old**

I have seen a 29 year old woman (now 34), who told me the other children used to throw orange peels at her and call her "dummy," find herself as a member of the adult world of work through her efforts to master business word processing. This woman is now holding down a regular clerical job, "with benefits too!", as she recently confided to me proudly. This woman tests at 65 on "IQ" measures, and was given little hope that she would ever really be normal by a school system that labeled her "special ed." But somewhere inside her she never gave up, and when she discovered she could do this word processing stuff better than most, it was like the sun coming out of a cloud. At last she could do something worthwhile, that society valued. Her life was changed.

#### **Turned On to Writing by a Talking Robot**

I have seen a 17-year-old boy, a special education student throughout his school career because of his marginal autism, discover a computer program that would say anything he

typed, and all of a sudden, he had a reason to write! He brought with him to our second workshop a list of 87 words and phrases he had laboriously written (in a scrawl only he could read...well, maybe his mom, too), which he wanted to hear the robot voice in the computer say for him. His mom told me she had never seen him spontaneously write anything of this magnitude ever before.

I lost track of this student for about four years, then started working with him once weekly about a year and a half ago. After browsing most of the talking word processors I had access to on the Apple II, using them to write letters to people he wanted to communicate with or needed information from, he has graduated to regular, non-talking word processors. He uses GeoWrite on his two Commodore 64 computers (one at his group home and one at his mom's place) and is becoming an expert on MacWrite at our Aloha Special Technology Access Center (our Hawaii affiliate in the National Special Education Alliance). Next week he and I and Steve, one of our consumer members of the Aloha STAC board of directors (this guy is another life changer - he discovered the Apple before me, and word processes at 20 words per minute despite his severe cerebral palsy) are going to work out the design for a promotional flyer and admission ticket we plan to use in our upcoming fund-raiser at Studebakers, a local disco. Steve is a 50s and 60s rock and roll expert, and he plans to provide unique cuts from his personal collection of 45s for our fundraiser revelers to lindy and bop to.

### **Babies On Task for Over One Hour**

I have seen very young children with severe physical, cognitive and speech disabilities brighten up and interact with caregivers for 60 to 70 minutes non-stop via properly chosen interest-driven communication software. All we had to do was give L. (a two year old with cerebral palsy and little, if any, recognizable speech) a chance to ask for play and music outcomes by pressing the switch with Jean Kiyabu's and Cheryl Fong's Tot Lingo program. L. would press the switch when the picture of a child rolling a ball appeared on the screen, the computer would say "Roll ball." for her, and Cheryl would roll the ball across L's tray. They rolled, caught, bounced and threw the ball back and forth for about 20 minutes before L gave signs of boredom and Cheryl switched the theme to bubbles. They then blew bubbles, popped bubbles, caught bubbles, and got many more bubbles (the four choices in the bubbles theme) for another 20 minutes. They were both starting to get a little tired when they got to the music theme, where L could choose to ask me to play "The People on the Bus, Rock-a-Bye, Twinkle Twinkle, or Peek-a-Boo" on my guitar. L and Cheryl sort of bopped til they dropped, so to speak. It was hard to tell who was more exhausted after 75 minutes, but it was a good kind of exhaustion.

### **Child With Profound Disability Talks With Aid of Computer**

Another child, not so young in years, but all but given up for a goner at school (placed as severely multiply disabled and profoundly cognitively challenged - very young in cognitive age), just lit up like a candle one day while I was messing around with some single switch music software. D happened to be in the room while her mother was working next door. She likes having the TV as company, but it does get a bit boring lying there on the floor. I noticed D looking up, lifting herself with all her might (a great effort, due to her physical disability). She was most interested in the sounds of music coming out of the computer as I pushed the switch. Ruth Akiona, president and executive director of our Aloha Special Technology Access Center (National Special Education Alliance affiliate in Honolulu), decided she'd go out and get D's father, who was working nearby, and see what would happen. We put D on dad's lap, positioned the switch so she could reach it easily, and showed her that she could get the computer (and all of us too, of course) to sing for her just by pressing the switch.

She just had a ball, of course! Her favorite song was "If You're Happy and You Know It Clap Your Hands." We all sang along after she pressed the switch, her dad helped her clap her hands, and she smiled broadly - the first really radiant smile I had seen on her face. The second time through the songs, D started laughing with great gusto as we reached "If You're

Happy." The third time, she actually initiated the hand clapping movements in anticipation of her favorite.

Well, we figured she needed to be able to tell us what she wanted to play with or sing with more direct control. So we tried Tot Lingo (TL, hereafter, a public domain program by Jean Kiyabu and Cheryl Fong). So we tried the songs theme from TL. She absolutely loved the "Peek-a-Boo!" So we left the "Peek" picture on the screen for about 10 minutes so she could ask us over and over again for her favorite TL song. D really enjoyed being able to ask for the ball to be rolled to her, or bounced, etc., so we have been careful to offer her that ball theme each time we have a session with her. We have since shown the whole family how to use the program, and they are on their way to synthesizing a language for D to use to communicate her needs and interests, with the help of the computer, the speech synthesizer and the proper program - in this case, at least to begin with, Tot Lingo.

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