Action-transmitted knowledge

Children should not build a birdhouse in order to learn the Pythagorean Theorem.
Children should learn the Pythagorean Theorem in order to build a birdhouse.

Touch. Feel the texture. Smell. Duplicate a shape, a pattern or a color. These are examples of what we call "action transmitted knowledge."

As a young lumberjack I once stood quietly, observing an older man whose job it was to load the logs onto the long lumber sled and drive them to the mill. The older man had his own way of moving, he nearly danced with each log, lifting it, rolling it a little, using small motions to push it this way and that. Until quite suddenly everything was in place, ready to be transported on the sled. One day the older man brought his five-year-old son with him. The boy walked behind his father, watching him and doing exactly what he did, easing a log, dancing with the load, mimicking each of his father's movements. At that moment, I realized that I was observing a transmission of knowledge from father to son. (Jon Bojer Godal, communicator of action-transmitted craftsmanship, researcher and author.)

Jon Bojer Godal
(Photo: Helle Hundevadt, Hjerleid)

Mind and body, head and hands

Knowledge is found in the movements of the body. It lives in patterns of action. We learn from doing. Mind and body, head and hands, are all tightly connected. This is not always easily understood. We are too accustomed to the verbal approach to knowledge. But knowledge transmitted only through words is a one-dimensional approach, and it will always be flat. The concept of action-transmitted knowledge is central to the work we do at The Association for Studies of Culture and Tradition and in all our member associations. “Action-transmitted knowledge” is the term we use to describe how the knowledge of craft is based in action and practice. It also describes how a craft is carried on. It is an international language we can practice together: a language that bridges different cultures.

Man is a tool-using being. We say that we “grasp an idea.” But the expression comes not from the mind, but from the grip - from the hand that grips the tool. Brain research shows that our tactile and movements systems are the basis for developing our thinking power as well. If we use our hands too little, we think less clearly. Theory and practice are not contradictions, rather prerequisites for development. The Norwegian society is experiencing an awakening around this.

After 2010, the Norwegian political environment began to place a greater value on practical skills and needs in society. These values are now being incorporated into the school curriculum in a clearer and more concrete way. This shift in values has resulted in a nation-wide strengthening of practical skills training.

Young Handicrafters

Norges Husflidslag - the Norwegian Folk Art and Craft Association - member of The Association of Studies for Culture and Tradition, is running an ongoing program reaching children and young people up to the age of 26. Young Handicrafters provides this age group the opportunity to work with practical crafts, learning from experienced crafters and from each other. This program is a model of action-transmitted knowledge in its purest form. When attending Young Handicrafters, children and youths learn basic crafting techniques, such as knitting, weaving, embroidery or woodworking. In a safe atmosphere and with knowledgeable guides, the participants are able to play and experiment with exciting colors and materials. Young Handicrafters was established in 2007, and there are now more than 120 Young Handicrafters groups in Norway, each one organized by a local branch of the Folk Art and Craft Association. In addition to teaching children and youth craft skills, the Handicrafters program also teaches skills that enable participants to fix, repair, and maintain the handmade objects that they live with in daily life.

Carding wool (Photo: Norwegian Folk Art and Craft Association Husflidslag)

Hjerleid School and Craft Center

The Association for Studies of Culture and Tradition, which the Norwegian Folk Art and Craft Association is a member of, owns a private craft school at Dovre in Gudbrandsdalen. Hjerleid School- and Craft Center is located in between four national parks: Rondane, Jotunheimen, Dovrefjell and Reinheimen. The school is a melting pot of traditional learning, as well as a melting pot of students. It houses students from all over Norway, and abroad, quite a few of them living on campus. The central elements of education at the school are woodcarving, blacksmithing, traditional painting, craft training in (among others) timber framing, traditional building techniques, wood turning and other crafts. Woodcarving and blacksmithing are traditional skills which are covered by the Unesco convention for safeguarding Intangible Cultural Heritage, and Hjerleid, and Hjerleid is the only school in Norway offering woodcarving. The school has taken a specific

Young students at Hjerleid (Photo: Torunn Kveen)

responsibility for the national intangible cultural heritage, and is therefore allowed to admit students of all ages.

About 40 students are each year able to acquire an understanding of materials, from the tree still in the forest, all the way through sawing, axing, drying, choice of materials, style and tools, different carving styles and joinery, painting, finish and finally setting up an exhibition at the end of the year. All the way from material to final product, they work about 30-35 hours a week hands on in the workshops, on one project at a time, mostly using handcraft techniques and little machinery.

The school also offers weekend courses, consultation service, a visitors' center with the school museum, research and workshops.

Mastery and ripple effects

"*In fifth grade, I was able to place all the states in the United States on the map for the big US test. I can't anymore. In fact, I couldn't do it the week after the test*." There are incredible amounts of information we can cram into our brains when we have to. But, if we do not end up using that information, or if that information is simply not useful to us, it can quickly disappear. After a test on Friday, a teacher might register that, "Howard can place all the states in the United States." But if Howard can only place half of them on the next Monday or Tuesday, what's the point? If what we measure are fragments of memorized “knowledge”—knowledge that we really know nothing about—there is almost no learning effect. So what’s the point of “learning” like this?

Young students trying blacksmithing at Hjerleid (Photo: Torunn Elise Kveen)

Crafts and handicrafts represent an international language we can practice together, despite language barriers, culture, age, and level of expertise. Young people who learn and practice a craft, develop and use different physical and mental skill sets than those they use in theoretical academic subjects. By working with crafts and handicrafts, children and youth can develop mastery, build self-confidence and gain a sense of security through participating in deliberate and unhurried activities such as crafts and handicrafts. And in turn, activities like this provide a good framework for diversity and inclusion.

The mastery of a craft is good training for the psyche. It lubricates the physical and mental machinery, and creates positive ripple effects. We all need recognition and a pat on the shoulder. Achieving mastery in one field also gives a positive effect on other, more theoretical fields and subjects. Crafts give their makers the opportunity to be logged off and present in their own lives, where the process can be just as important a goal as the end product or result itself. Knitting or carpentry requires time, provides tranquility and creates a rhythm. This is added value, economic growth and health investment in the future. The mastery of craft also has a dimension linked to wise use of resources, sustainability and, thus, climate challenges.

"If your head doesn't have it, your hands do"

"If your head doesn't have it, your hands do," is an old, locked-in statement that has been used in Norway to categorize students. But it's wrong! We must stop sorting people by test results in mathematics against the ability to sew nice garments. Similar to some other professions and skills, craftsmanship requires good motor skills, but first and foremost it requires a good head and a good intellect for solutions and process understanding. The hands and the rest of the body develop the brain, train it to think across borders, build bridges and be creative. Craftsmen are professional problem solvers, and in every craft process there is a huge transfer value into other disciplines or other professions.

> *Those who create innovative, technological solutions are not simply engineers, but quite often people having a background in crafts, topped with an engineering degree. So the prerequisites for solving advanced problems are best when you have practical experience in combination with theoretical knowledge.*
> (Dag Oscar Oppen Berntsen, Special Advisor to The Research Council of Norway, FORM 4/2015)

Math and crafts have a lot in common. In both these disciplines, process understanding is important, not only the answer or the result. The point is not to acquire craft skills to make wooden plates for the rest of your life. The point is that you acquire an understanding of materials and develop fine motor training, and not least, training for the brain.

We must have faith in a community with qualities where theory and practice are not contradictions, but rather prerequisites for development.

Gathering, leveling, ventilating and motivating

The link between crafts and academic learning is a large and comprehensive field of research. What is nevertheless important for the individual environment, group, school and class to seize upon and use as an argument and basis, is the strength of craftsmanship for gathering, leveling, ventilating and motivating. It can help with a child's motor development, and his or her ability to see contexts and feel mastery and increased livability. When children and young people are entering other arenas where they feel more shaky, it is of great importance to them to have arenas where they feel good enough to meet major challenges, where they experience the satisfaction of mastering, where they are being seen and heard, and being considered a person—regardless of achievement. They become a member of a group, experience the emotional satisfaction of belonging and contributing with others. These groups may cross generations and levels of competence, yet they allow all members to feel on the same level.

In today's high-powered schooling environments, students are often endlessly racing to achieve one goal after another. By providing our youth with opportunities to learn and practice craft, we are allowing them to experience working with their minds *and* their hands. And we are opening a door to the deep satisfaction and rewards that accompany these creative processes.

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