Social Engineering™

Back to School™

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INTRODUCTION

Gaining new abilities has been one of the big payoffs for characters in roleplaying games from the very beginning. *GURPS* offers rules that handle this in a variety of ways, including several methods of learning. Whether the PCs hit the books or learn from the school of hard knocks, the players can account for the effects on their skills and other abilities.

But the biggest strength of *GURPS* has always been its *options*. Different players and different campaigns have different needs. *GURPS Social Engineering: Back to School* helps you custom-fit the learning rules to your game by clarifying existing approaches, providing new ones, and offering guidelines on which alternatives to use. Tools in the box include:

● Monthly study rolls to track how much a character is learning.
● Detailed accounting of time spent on various kinds to learning, and for which abilities.
● Optional rules that account for the benefit of each activity in a class or a program of study.
● Spending earned character points on new skills and other traits.
● Intensive training and heroic learning that grant new abilities at an accelerated rate.
● How teachers and schools affect the learning process.
● Bringing learning to life in dramatic classroom scenes and training exercises, and exploring the relationships between learners and teachers.

The result? A toolkit for running learning and teaching the way *you* want, be that as an adjunct to an existing game or as the focus of a brand-new school-based campaign. Whether your players want quick training in martial arts or disarming explosives, or seek entire sessions in remote monasteries or superhero academies, *Back to School* will give them what they're looking for!

PUBLICATION HISTORY

This is the first edition of *GURPS Social Engineering: Back to School.* It expands on the learning rules in the *GURPS Basic Set,* and takes specific elements from *GURPS Martial Arts, GURPS Powers, GURPS Social Engineering,* and *GURPS Ultra-Tech.*

> *Why don't we save the world domination stuff for recess?*
> – Miss Kyle, in *P.S. 238*

ABOUT THE AUTHOR

William H. Stoddard is a professional copy editor, specializing in scientific and scholarly publications in fields ranging from aerospace technology to literary history. Fortunately, he likes reading nonfiction; his research library fills several shelves, and he regularly visits the nearest university library. His other pleasures include cooking, reading science fiction and alternate history, and running and playing in roleplaying games, which he has been doing since 1975, when he first encountered *Dungeons & Dragons.* His previous work for Steve Jackson Games includes *GURPS Low-Tech* and *GURPS Social Engineering.* He lives in San Diego with his cohabitant Carol, two cats, two computers, and far too many books!

ABOUT *GURPS*

Steve Jackson Games is committed to full support of *GURPS* players. Our address is SJ Games, P.O. Box 18957, Austin, TX 78760. Please include a self-addressed, stamped envelope (SASE) any time you write us! We can also be reached by e-mail: **info@sjgames.com.** Resources include:

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Errata. Everyone makes mistakes, including us – but we do our best to fix our errors. Up-to-date errata pages for all *GURPS* releases, including this book, are available on our website – see above.

Rules and statistics in this book are specifically for the *GURPS Basic Set, Fourth Edition.* Page references that begin with B refer to that book, not this one.

CHAPTER ONE
LEARNERS AND LEARNING

Nearly every **GURPS** character has the ability to learn and something to gain by doing so. The rules provide many options for accomplishing this, but it isn't always easy to keep track of them all in play. This chapter puts everything in one place, clarifying as needed and adding a number of new possibilities. Even old hands should take a look – they might learn new tricks!

THE PROCESS OF LEARNING

Learning is a *process* in two senses of the word. First, PCs develop new capabilities through activity of different kinds. Second, learning can be portrayed in different ways. It can be handled through resource management and record-keeping – but it can also be roleplayed, in the dramatic foreground of a campaign.

LEARNING AS CHARACTER DEVELOPMENT

Character development adds new traits to a character sheet, or sometimes removes old ones. Most such traits have point costs, which can limit their acquisition and have an effect on an adventurer's point value. There are several different ways to represent this process.

Time-Based Learning

The basic way to gain new abilities, at least for human beings, is to spend time and effort acquiring them. Time-based learning doesn't cost earned character points. Rather, when you invest the hours and gain the ability, your point total increases to reflect what you've studied. Each 200 hours of learning grant one point of anything learnable (see *What Can Be Learned*, pp. 8-13).

Not all forms of study are equally effective. An hour of *learning* may require more than an hour of *study* – or less! There are four basic rates. Many traits and resources in **Back to School** alter these rates, and are expressed as percentage increases or decreases in hours gained (see *Learning Times*, pp. 37-38).

Time available limits time-based learning. A full-time job takes eight hours a day; a part-time job, four hours a day. Those hours can't be counted for most forms of study. If you're independently wealthy, or supported by family or scholarships, or your job *pays* you to study, you don't have such limits.

This can mean a lot of record-keeping. How many hours a week is an adventurer spending on a class? How many weeks have passed? For ways to simplify the accounting, see *Study Rolls: Learning as a Job* (p. 5).

Learning on the Job

Time spent at work tends to increase skill – but much of it is spent on familiar, already-mastered tasks. *Four hours* of work grant the benefits of one hour of learning. It doesn't matter if you're getting paid! Volunteer work can pay off in improved skills. However, if you work more than eight hours a day, the overtime doesn't count as study; you spend the extra hours just struggling through the day's tasks.

If your work requires learning *new* skills, that isn't treated as "learning on the job." You're getting paid to learn. Use the rules for one of the faster methods.

Self-Study

Time spent reading and studying on your own is more effective – but you still lose some of it to misunderstandings, sidetracks, and distractions. *Two hours* of self-study grant the benefits of one hour of learning.

The same rate applies to practicing a skill on your own and other ways of learning through activity. Two students can practice together – for example, improving a combat skill by sparring.

You can spend up to 12 hours a day on self-study, minus the hours you spend on jobs. If you work 12 or more hours a day, you have *no* time for self-study.

Formal Instruction

Taking courses from a teacher is the benchmark for learning: *one hour* of study grants the benefits of one hour of learning. A "teacher" requires the Teaching skill at 12+ (but see *Teaching Skill and Class Size*, pp. 17-18), and must either know the skill being taught at your current skill level or higher, or have at least as many points invested in it as you do.

You can spend up to eight hours a day on formal instruction. This doesn't mean you spend the entire time in the classroom or dojo! What matters is that a teacher supervises the overall course of instruction. Closer supervision makes for more effective teaching; see Chapter 2.

If you and another student of similar skill are practicing together, he can act as your teacher – but you also act as his. You each spend half the time in each role, so *two hours* of study grant each of you one hour of learning (equivalent to *Self-Study,* p. 4). The GM may allow some leeway on skill level or points invested, if your general capabilities are comparable.

Intensive Training

Faster learning is possible, under military discipline or the equivalent. With superior training materials and close attention from instructors, each hour of study counts as *two hours* of learning; see *Teaching Skill and Class Size* (pp. 17-18). Teaching at this intensity requires both a higher level *and* more points in the skill being taught than the students have. It can last up to 16 hours a day.

Intensive training is stressful. Getting through it requires HT 12 or better. Modifiers for Fit (p. 13) or Unfit (p. 15) affect this. At the GM's option, Will 12+ may substitute for HT 12+, in general or for specific skills; e.g., book-learned skills, skills that default to Will, and spells. If so, modifiers for Fit and Unfit don't apply.

Study Rolls: Learning as a Job

Instead of actual hours spent, it's possible to track study month by month. Monthly study rolls are similar to monthly job rolls, except that the "pay" is hours of learning. This simplifies bookkeeping for campaigns where training is kept in the background.

The basic monthly study roll is made against Will. Talent in your main area of interest (if applicable), and Single-Minded or Attentive, provide bonuses. See *Ability to Learn* (pp. 13-16).

The basic monthly study rate is 150 hours; add or subtract 10% (15 hours) per point of success or failure. On a critical success, you make a breakthrough that grants 400 hours of learning for that month, if that would be better. Self-study lets you learn half as much, while intensive training uses special rules (see below).

On a critical failure, you overwork and collapse. Treat this as 3d fatigue damage, with negative FP causing injury as usual (p. B426). Recovering these lost FP requires *days* of rest, at 3 FP/day. The GM may provide other consequences, instead of or in addition to these – especially on a roll of 18.

List the things you're studying before rolling. Divide the rolled hours of learning among them. On a good roll, you can treat extra hours as advanced work in your courses – or the GM may let you apply them to a hobby, sport, or social skill. Many students finish their education with a point in Carousing!

Additional rules clarifying the effects of particular traits, situations, and actions on monthly study rolls appear throughout **Back to School.**

Study Rolls for Intensive Training

Intensive study is performed under close supervision, more like a regular job. Hours gained don't vary according to a Will roll. A month of intensive study equals 400 hours of study time – the same as a critical success on a regular study roll. These hours count *double,* for 800 hours of learning gained.

A monthly roll is still required, but it's usually made against HT. Successive months without a break give a cumulative -1 per month after the first. Failure by 1 or 2 results in minor injury: 1d-3 HP (minimum 1 HP). Failure by 3+ causes 1d injury and sufficient stress to require dropping out and starting over. Critical failure means the injury is more serious: 3d HP, applied to a random hit location (at the GM's discretion, a hit-location roll of 11 – the groin – may be interpreted as the eye or vitals instead). Limb, extremity, or eye injuries can cripple (pp. B420-422), while multipliers for skull, neck, or vitals wounds may lead to harm severe enough to require HT rolls to survive (p. B419).

At the GM's option, intensive training that doesn't involve vigorous physical exertion or dangerous equipment can require a roll against Will rather than HT. Failure by 1 or 2 results in a new quirk (even if the student already has five). Failure by 3+ means collapse from overwork, like critical failure on a regular study roll. Critical failure *further* adds a mental disadvantage worth -10 points; roll as for a crippling injury (pp. B420-422), but using Will instead of HT, to see whether this is permanent or can be treated through psychotherapy.

The GM may choose to use *weekly* HT (or Will) rolls at +3 for intensive training. Each week's successful study is worth one character point.

Points-Based Learning

Player characters often acquire skills and other abilities with earned points. Some rarely learn any other way! This represents extremely quick improvement under stress.

It's generally fair to count skill rolls during adventures as "under stress." This includes default rolls, which can let you gain a new skill while adventuring. However, if you can keep trying without costs or penalties, aren't under time pressure, or receive a bonus for extra time (p. B346) or favorable circumstances (p. B171), you aren't under enough stress for such rapid learning.

Gaining a new skill requires an IQ roll (at +5/+10 for Eidetic/Photographic Memory) for each ability used successfully at default, Make these rolls at the start of the *next* game session. If you succeed, you can invest one point earned from adventuring in that trait. If you have no points to spare, or an ability has no default, you're out of luck.

If you already have points in a skill or a technique, you can *always* improve it after using it under stress. No IQ roll is required. Ordinarily, you can spend any number of points on any such ability – but in a campaign where points are awarded each session, the GM may limit skills and techniques to one level of improvement per session.

Earmarked Points

The GM has the option of awarding points earmarked for a particular ability, based on sustained exposure to a suitable environment during an adventure. This requires no IQ roll – it reflects an ongoing effort over weeks, with some number of hours per day credited toward the required 200 hours of learning. Traits that can be acquired this way include:

- Cultural Familiarity: four hours/day (p. B294).
- A new language: four hours/day (p. B294).
- G-Experience in a particular gravity field: 16 hours/day.
- Survival in a particular environment, including Urban Survival: 16 hours/day (p. B293).
- Savoir-Faire or Streetwise, from exposure to a *social* environment: four hours/day.

LEARNING AND REALISM

Standard time use allows an adventurer to spend eight hours a day on formal instruction – equivalent to a full-time job, or about 2,000 hours a year – while the baseline rate for study rolls (p. 5) comes to 1,800 hours a year. *Education* (p. B293) equates a semester in college (14-20 weeks) to one point each in five different subjects. At 10 points/year, every college graduate would have 40 points of learned abilities. After 40 years on the job, he'd retire with *another* 100 points!

That can be a workable model for adventurers. Most players choose *useful* skills and abilities for study; they won't have their characters waste much of that valuable time, and the rules don't force them to. But it's a poor fit for the general population, characters in a "slice of life" campaign, and even many adventurers between adventures. There are ways to gain more realism where needed.

Time-Based Learning: The standard method of accounting for learning time is *holistic:* If a student has a teacher, all the time he puts in counts as formal instruction, even if he spends most of it at his desk or in the library. A very detail-minded GM could assess those hours outside the classroom (about 2/3 of the time for a typical college course!) as *self-study* (p. 4). With that accounting, a college *year* of a subject equates to one point. Other learning situations could be broken up the same way (see *Instructional Methods,* pp. 31-32).

Study Rolls: If that seems like too much bookkeeping, rely on monthly study rolls instead – but for most students, set the baseline at 100 hours, not 150. The "lost" time goes partly to recreational activities and partly to simply being less focused on study. Over two semesters, the typical student will gain four to five points. Twenty points isn't outrageous for a four-year degree.

Specific Courses: Teachers aren't necessarily available to teach whatever skill a student wants, for any number of hours. Particularly in organizations (see *Resources,* pp. 28-31), learning opportunities may take the form of specific courses that meet on set schedules and perform specific activities. The GM can describe these lessons in detail and have the players roleplay scenes of coursework (*Learning as Drama,* pp. 7-8).

Maintaining Skills: Learning a skill need not be permanent – realistically, skills degrade if not used. Basic rules for this appear on p. B294, but here's a slightly more detailed treatment: An unused skill requires an IQ roll, still at -2 for skills gained through intensive training, and +5/+10 for Eidetic/Photographic Memory. Failure means you lose a level of skill; if you have only one point in the skill, failure reduces you to default level, after which skill decay ceases. (A skill with no default falls to attribute-4 if Easy, attribute-5 if Average, attribute-6 if Hard, or attribute-7 if Very Hard.) For most skills, this roll is required after six months, but the period is two weeks for a skill above attribute+5 or *one day* for a skill above attribute+10. To avoid this, you must apply the skill in the field, to a task of at least "Average" difficulty (see p. B345), or spend time practicing: 30 minutes if the skill is Easy, one hour if Average, two hours if Hard, or four hours if Very Hard. Practice time doesn't count toward self-study.

Points-Based Learning: A further option is to tie skill development to earned character points. Gaining the first point of a skill or a language requires only study time, but later improvement – *any* improvement, for a technique based on a skill – requires *both* time and earned points. For adventurers, who earn character points regularly, study time is the limiting factor; when they return from a mission or a quest, they put in time preparing for the next one. This is not only more realistic but also helps avoid ultra-powerful characters who are hard to challenge. Non-adventurers may spend lots of time studying or working; what limits the growth of *their* abilities is the need to earn points from the stress of work or daily life. A new employee's first year on the job might grant a few points for learning the ropes, and the GM may award anyone a point for dealing with a critically failed job roll!

● Crewman or Soldier, in the course of service: eight hours/day.

Only *one point* can be gained in this way. Languages are a possible exception – the GM may opt to limit these to Accented comprehension instead.

Heroic Privilege

In some settings, a powerful being or organization – which might be a Patron – can grant abilities extremely rapidly. The GM may allow investment of earned points in such traits. This is a privilege of heroic (or villainous!) adventurers, not a commercial service that anyone can pay for. The classic example is new divine magic spells granted by a god (see *Clerical Magic,* p. B242).

Points as an Accelerator

For some campaign styles, letting earned points alone pay for skills – particularly in the middle of a continuing adventure – may make character advancement unbelievably or inconveniently fast. As an alternative, learning new skills can require in-play justification *as well as* expenditure of points, just like improving other traits (pp. B291-292). One way to do this is to treat character points as an *accelerator* for learning. Study time grants points that can be invested in skills as usual – but it takes at least 200 hours to gain a point. Each earned point allows gaining one point of ability in *half* the time that would otherwise be required. Standard *Intensive Training* (p. 5) should not be used if this option is in effect.

For a version that requires fewer hours, see *Retreats and Workshops* (p. 30). *Learning and Realism* (p. 6) provides yet another approach to combining study time and earned points.

Money-Based Learning

In some settings, you can have new abilities directly imprinted on your body or brain through magic, psionics, or advanced technology. This takes place extremely quickly and doesn't require you to spend character points. Instead, you pay the appropriate *cash* cost (or equivalent) and add the ability and the points to your character sheet. The price is up to the GM! Below are two ultra-tech examples.

Cognitive Programming (TL10)

This involves an extremely advanced virtual environment (p. 30) based on sophisticated neural models of human cognition and reward mechanisms, combined with drugs that enhance learning and memory. The user undergoes simulated experiences that include use of a skill under stress, which is similar to points-based learning (pp. 5-7). This is followed by artificially induced assimilation akin to dream rehearsal (p. 16). An IQ roll results in acquisition of a level of a skill or a technique, or of comprehension of a language. Programs cost $3,000 × (square of the number of points added), and require one day for exposure and one day for assimilation.

Individually fitted programs require five days of assessment with the Brain Hacking skill, at a cost of $12,000; cost $6,000 × (square of the number of points added); and give +2 to IQ for assimilation. A single initial fitting works for any skills "studied" this way during the following year.

Because stress is a necessary element, the GM may require a HT roll (at +2 for an individually fitted program) for each session. Failure doesn't prevent learning; instead, it causes aftereffects similar to a failed Fright Check (pp. B360-361), but longer lasting: temporary consequences last minutes instead of seconds, or hours instead of minutes. Critical failure produces effects *during* the experience and prevents assimilation.

Instaskill Nano (TL12)

Injection of instaskill nano directly restructures the brain to implant new memories and abilities. It grants one point toward a skill or a technique, Cultural Familiarity, or Broken or Accented comprehension of a language; it cannot raise the subject past two points in a skill or a technique. Assimilation takes a full day. Taking instaskill nano twice in 24 hours requires an IQ roll to avoid suffering Phantom Voices at the "Annoying" level (p. B148) for days equal to margin of failure – or *permanently,* on a critical failure. Taking more instaskill while suffering from this condition confers no benefit. Costs $30,000/dose.

LEARNING AS DRAMA

Learning doesn't have to be kept in the background, relegated to character-sheet updates. A learner's studies can be *roleplayed.* This doesn't mean gaming out every study session, but rather picking out memorable points to bring into the foreground.

First Day of Class

What's your teacher like? A strict disciplinarian, or a sarcastic bully? A brilliant eccentric, or a flake? A conscientious professional, or an inspiring role model? At the start of a course, students wait – often a little anxiously – to find out. The first day of class sets the tone.

The GM might not use the rules for success or failure at teaching (*Teaching as a Job,* pp. 17-19) in the ordinary course of play, but the first encounter is a good time to apply them! It isn't just whether a Teaching roll succeeds or fails that matters, either. What modifiers affect the teacher's effective skill (*Ability to Teach,* pp. 20-24 – and once again, *Teaching as a Job*)? How does he present himself? What's his attitude toward students (*Students and Teachers,* pp. 25-26)?

Students joining an ongoing class, or one where many fellow students already know each other, also face reactions from the other students. *Those* are often more obvious.

Lessons

As a rule, it's better not to use classroom scenes to present information to players. Novelists have an unkind name for this sort of scene: "idiot lecture." It's difficult to make exposition exciting.

Lessons can serve other purposes, though. They can create continuity, in the form of recurrent short scenes. They can illustrate what the protagonists are studying. In the process, they can provide a setting for student relationships. This can be accomplished by briefly mentioning the subject and describing the method of instruction, be that demonstration of a skill, readings from a book, questions and answers, or something else. It's possible to slip in a bit of information that will be needed later – or, if the teacher allows questions, to let the students ask about their current concerns.

In effect, for the course's duration, the students have a free Contact (whom they may pay points to retain after it ends, with GM approval).

Example: The police force on which Liz and Raj serve as detectives sends them to mandatory sensitivity training. During a break, they bring up a current case, gaining the benefit of their instructor's Psychology skill in profiling the perpetrator.

The first lesson in a new technique that's part of a skill can be a good focus for a scene – for example, fencing students being shown Feint or Retain Weapon. They don't need to be trying to gain points in the technique itself; training in a skill's techniques is part of studying the skill. Let all the characters attempt the technique at default. Consequences of failure, even critical failure, shouldn't be severe . . . except in "live ammo" or "danger room" scenarios, where real risk is part of the teaching process.

Tests

For tension in the classroom, it's hard to beat a test. Pencil-and-paper exams are probably the least dramatic form of testing. Scenes of instructors challenging students to explain what they've been studying (in the style of law classes) or to demonstrate an applied skill (such as Musical Instrument) are more interesting. Having students pair off and compete is also effective, and can provide more characterization. This can be anything from sparring in a martial-arts class to formal debate in an academic one (discussed respectively in **GURPS Martial Arts** and **GURPS Social Engineering**).

Tests provide a natural point to reveal the results of variable learning, as discussed in *Study Rolls: Learning as a Job* (p. 5). A student who gained enough hours of learning to acquire the skill will likely succeed. One who didn't may *still* luck out and pass!

Tests of professional qualifications can be represented as Quick Contests of the examinee's skill vs. the required skill level to pass the test. For most occupations, the required level is 12. For demanding ones, such as surgeon or fighter pilot, 14 is more likely.

Initiation

In a cinematic campaign, epic heroes may seek lessons from extraordinary teachers. The GM might write up these teachers as characters, typically ones with the Legendary Teaching technique (p. 24). They could be defined as Patrons (pp. B72-73) – normally more powerful than their students – with the Special Abilities enhancement. Or the GM could define them *like* Patrons, but with no established relationship with the PCs and no point cost, requiring would-be students to earn their favor through special merits or heroic deeds (*Loyalty,* p. 26). That last approach especially fits seeking instruction from an enlightened sage, a super, an alien supermind, or even a true god.

Use *Heroic Learning* (pp. 19-20) to represent such training, including the high learning rate and a retreat (p. 30) as the setting. Even if the instructor's Teaching roll fails, the GM may allow students to spend one point – as usual for points-based learning – with a successful Will or Meditation roll.

What Can Be Learned

Learning normally adds traits to the character sheet, and these usually cost points, but there are exceptions – and not every trait can be learned.

Skills

Skills are the prototype for learnable traits; *every* skill can be learned. Several skill categories are noteworthy from a learning perspective:

Book-Learned Skills: Skills that are normally studied from texts and require written comprehension of their language. These include most *knowledge* skills and IQ-based *technological* skills.

Cinematic Skills: Skills that require an esoteric advantage as prerequisite. The most numerous examples are martial-arts-related skills that have Trained by a Master, Weapon Master, or a similar advantage as a prerequisite. **GURPS Thaumatology: Chinese Elemental Powers** defines a version of Blessed – Harmony with the Tao – that serves as a prerequisite for Alchemy and Herb Lore, and for cinematic versions of Erotic Art, Esoteric Medicine, and Fortune-Telling. Enthrallment (with Charisma as prerequisite) and Musical Influence (with Musical Ability as prerequisite) are subject to comparable
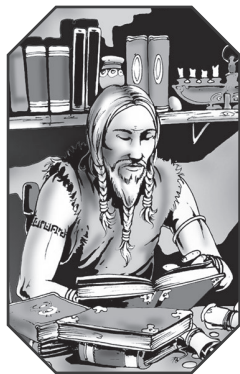
rules. The Unusual Training perk (p. 13) allows learning a limited version of a cinematic skill.

Knowledge Skills: Skills that involve recalling and/or interpreting information. Knowledge skills are usually also *book-learned,* but some are or can be based on memorized information. As used in **Back to School,** this category excludes IQ-based *technological* skills.

Practical Skills: Skills that involve performing tasks but aren't qualified with /TL. Other non-IQ-based skills are normally practical; combat skills fall into this category. Some IQ-based skills also count as practical. Many practical skills involve acting on the external world, but inwardly directed skills such as Autohypnosis, Breath Control, and Meditation qualify, too.

Technological Skills: Skills qualified with /TL, divided into IQ-based and non-IQ-based subgroups. The learner's TL restricts the ability to gain such skills. You must buy High TL (p. B23) or Cutting-Edge Training (p. 13) before you can study a higher-TL skill. You can always study a lower-TL skill if a teacher is available – there are real-world anthropologists who know how to chip flint into tools (Machinist/TL0), but no one practices Roman surgical techniques (Surgery/TL2). To learn a lower-TL skill, start from either the default from the higher-TL version (p. B168) or the IQ default, whichever is better. Some skills *don't exist* below a certain TL: Metallurgy is unavailable before TL1, Guns before TL3, Chemistry before TL5, and Environment Suit (Battlesuit) before TL9.

If the technology a skill is based on hasn't been invented, you can't learn the skill!

Spells

Like cinematic skills, spells have no default and are normally learned from a teacher. Many have some level of Magery as a prerequisite – and only casters with Magery 0 can use spells in normal-mana areas. Most spells have other spells as prerequisites, forming elaborate chains (see **GURPS Magic** and **GURPS Magic Spell Charts**), but the GM is free to modify these.

In standard **GURPS** magic, casting a spell takes as little as a second, so the words and gestures required can't be very elaborate. Although spells are IQ-based, learning them is more like acquiring a physical skill through drill (p. 32): Nearly all the "study" time is spent practicing the spell over and over until you get it exactly right.

In a different interpretation, learning a spell means grasping a set of arcane concepts for which the words and gestures are merely a mnemonic. This allows learning magic from books alone, but at only *1/4* of the rate of study with a teacher. A monthly Thaumatology roll allows self-study at the normal rate – that is, *half* as fast as with a teacher.

A GM who wants to make magical studies more exciting can allow eight hours spent becoming familiar with a spell (*Familiarities*, p. 10) to permit casting it at default: IQ + Magery - 6 if Hard, or IQ + Magery - 7 if Very Hard. The student can then practice casting it under favorable conditions that grant bonuses (see **GURPS Locations: Worminghall** for one treatment), but with a risk of critical failure, until he accumulates the rest of the required study time. Alternatively, he can cast it at default in an emergency and apply *Points-Based Learning* (pp. 5-7) if he succeeds. The GM may use these rules for *any* spell, regardless of whether it has prerequisites or requires Magery. *Untrained Skill Use* (below) provides another approach.

Wildcard Skills

Wildcard skills (see p. B175 and **GURPS Power-Ups 7: Wildcard Skills**) have two uses. On one hand, they simplify character design, saving time and emphasizing high concept over realistic detail. For this purpose, *every* character's skills might be wildcards. Wildcards are studied in the same ways as other skills – they just cost triple the points and thus take three times as long to learn. Instead of studying Mathematics (Applied), Physics, and Astronomy, for example, a student would take Science! courses.

On the other hand, wildcard skills were originally designed to fit the heroes of cinematic campaigns, who are more broadly capable than ordinary people and can do anything the plot requires in a broad general area. In such a game, *most* people have realistic skills, possibly aided by Talents – but the heroes (and master villains) have wildcards.

The protagonists of cinematic campaigns may take exactly the same training as the supporting cast, but where a supporting character's time qualifies as study of Engineer (Clockwork) or Guns (Pistol), a hero's time counts toward Inventor! or

Gun! skill. He may take widely scattered courses, practice with varied tools or weapons, and/or read in multiple fields, yet have it all add up to a single broad capability – that's the *cinematic* part. In some genres, *any* time suitably spent may apply toward a wildcard skill; e.g., tea and conversation with a fencing master might help improve Sword! skill.

Alternatively, *Initiation* (p. 8) may be the usual or *only* way to study wildcard skills. In this case, the GM may allow a character who already has points in non-wildcard skills to convert them into points in the wildcard as a fringe benefit of going through initiation – but only if unspent points are *also* invested in the wildcard.

FAMILIARITIES

As *Familiarity* (p. B169) notes, many skills have penalties for unfamiliar equipment; e.g., Guns and Musical Instrument (see **GURPS Low-Tech Companion 1: Philosophers and Kings,** p. 17). A typical penalty is -2. Unless otherwise stated for a particular skill, becoming familiar with new equipment calls for eight hours of practice; a teacher isn't required. Familiarity has no point cost and can't be bought with character points.

Similar rules can apply to other penalties:

● Penalties for lack of artistic experience: -2 to Artist for a new medium (e.g., carving wood instead of cutting stone), -5 to Dancing for a new dance, -1 or -2 to Musical Instrument for a new instrument of a particular type (tenor vs. alto saxophone, zither vs. koto), -4 to Stage Combat for an unfamiliar weapon, and so on.

● Penalties for not knowing a species: -2 to -4 to Gardening for a new plant, -2 to Veterinary for an unfamiliar animal type, and so on. Becoming familiar with a new species takes a year or a breeding cycle, whichever is less.

● Penalties for not having worked with specific beings: -2 to Shiphandling for an unfamiliar crew, -2 to Teamster for new draft animals, and so on.

● Penalties for lack of *current* knowledge, such as -1 per day to Current Affairs for lack of access to news media (one hour, not eight, can make up for a day's penalty).

> *Don't know much about history*
> *Don't know much biology*
> *Don't know much about science books*
> *Don't know much about the French I took*
> – Sam Cooke, "Wonderful World"

TECHNIQUES

A technique can be improved in the same ways as a skill; this often costs less than improving the underlying skill. Buying up multiple techniques for a skill is usually a bad bargain, though. Most techniques are Hard and the first level of a Hard technique costs two points, so buying the first level of two Hard techniques costs four points – which could buy an added level of the skill *and all its techniques.* It's typically more efficient to focus on one signature technique for a skill.

If you have a technique *at default,* improving it normally requires time-based learning (or money-based learning, if the campaign world allows this). However, possessing Style Familiarity or an equivalent perk lets you acquire that style's techniques by points-based learning. In a campaign that includes styles, this usually isn't possible otherwise – that's one of the things that make Style Familiarity worth its cost! In a campaign without styles, but where points-based learning is an option, the GM may allow it for techniques as well as skills.

If the campaign includes cinematic techniques, learning them requires an additional prerequisite: Trained by a Master, Weapon Master, or another substantial advantage, or an Unusual Training perk (p. 13). Without that, you can *use* a cinematic technique at default but never *improve* it. If a cinematic technique doesn't exist in the setting, you can't use it even at default!

You can't learn techniques for a skill you have at default – even a very high default from another skill at a high level. But putting at least one point into the skill lets you buy its techniques, regardless of whether that would buy a level of the skill.

Example: Sergeant Andrei Alexeievitch Luzhin has IQ 12 and Engineer/TL7 (Combat)-15, but he hasn't trained specifically with explosives. His defaults are Explosives/TL7 (Demolition)-12 and Set Trap-10, and he can't train or buy up the technique. Investing one point in Explosives after his improvised mines work doesn't raise his skill but enables him to improve Set Trap through study or experience.

OTHER TRAITS

Some traits other than skills and techniques can be learned.

Attributes, Secondary Characteristics, and Talents

Strength, Health, and the secondary characteristics based on them aren't directly changed by *learning.* They're qualities of the body as a whole. For more on this, see *Body Training* (p. 12).

Dexterity, Intelligence, Will, Perception, and Talents are largely functions of the nervous system in particular, but it's hard to justify "training" them in realistic terms. While there are "brain exercises" that claim to maintain or improve overall cognitive functioning, it's unclear whether these benefit *applied* mental performance or skills much. Still, the GM may allow the use of earned points to buy up these traits directly – any series of adventures that earns enough points to enable this will include diverse activities. In a campaign with superscience aspects, a process such as cognitive programming (p. 7) may grant similar benefits.

Point Conversion

During character creation, experienced players keep track of how many points they're spending on skill levels vs. DX, IQ, Will, Per, and Talents. Consider an adventurer with IQ 11 and eight points in each of six or more IQ-based skills. Raising IQ to 12 would cost 20 points but allow him to buy the same skill levels for only four points per skill, saving a net four points or more *and* raising all his other IQ-based skills!

The GM may allow a similar tradeoff in play as a character-improvement option: Someone who has improved skills through study or adventuring may buy up DX, IQ, Will, Per, or a Talent while lowering the point costs of skills to pay for it. The idea behind such "point conversion" is that increased competence in *sufficiently varied* tasks enhances overall competence. Thus, for IQ or DX, at least eight different skills should contribute points; for Per or Will, at least four; and for a Talent, at least half of the skills it benefits (rounded down).

All relevant skills with two or more points invested in them *must* have their costs reduced. A skill on which only one point has been spent goes up a level at no cost.

Point conversion never *gives back* points. For instance, an adventurer with eight points in each of eight DX-based skills can increase DX by one for 20 points; this lowers the cost of each skill to four points, shaving 32 points off skills, but the excess 12 points is lost, not freed up for spending! *Exception:* If a skill gives level-based bonuses – like Forced Entry or Karate – the GM may allow it to be bought back up to preserve those bonuses, if points are available.

Language Talent (below) uses its own, similar, rules.

Languages

Spoken languages can be learned in the same ways as skills; so can written ones, in literate societies (see *Children,* below). Languages are hard to study without a teacher. It takes *four hours* of study and practice to gain the benefits of an hour of learning (but see *Linguistics,* p. 16).

A Native speaker of a language may have Accented written comprehension in various forms: spelling and punctuation that make his writing difficult to understand; inability to sound out new words; or, in a language written in word signs, familiarity with only a fraction of those in normal use (for example, the 1,006 kanji taught in Japanese primary schools).

Advantages and Perks

Some advantages can be acquired through study or by indirect paths:

Acute Senses are functionally Perception (One sense only, -60%). They might be learned indirectly, by point conversion involving at least *two* skills.

Ambidexterity can be taught or learned through self-study directly. Someone who has Off-Hand Training (see **GURPS Power-Ups 2: Perks,** pp. 16-17) with one or more skills can discount Ambidexterity's point cost.

Charisma 1 can be learned through highly specialized training, such as military leadership programs or intensive tutoring for the children of rulers. A single added level of Charisma can be taught to someone who already has the advantage (the campaign's maximum, if any, still applies). However, the teacher's Charisma must be at least equal to the learner's – and most teachers have Charisma 1; that's why they're teachers, not CEOs, heads of state, or prophets! Finding a teacher with Charisma 2+ should be a quest, not a simple search roll.

Combat Reflexes can be acquired through points-based learning in actual combat. In a TL7+ setting, military simulations can teach it through intensive training.

Cultural Familiarity can be gained by living in a different culture; see *Earmarked Points* (pp. 6-7).

Eidetic Memory can be acquired through sustained practice; see *Memory Palace* (p. 16). *Photographic Memory* cannot normally be learned – but at the GM's option, learning it may be possible for someone who starts with Eidetic Memory.

Enhanced Defenses and *Extra Attack* can be learned in the same ways as cinematic skills – almost always by martial artists with Trained by a Master, Weapon Master, or comparable advantages, or possibly the Special Exercises perk (p. 13). At the GM's discretion, they might appear among the optional traits for martial-arts styles.

Enhanced Time Sense may be learnable in a cinematic campaign, especially one that emphasizes meditation and mental disciplines.

G-Experience can be acquired by spending time in a different gravity field; see *Earmarked Points* (pp. 6-7).

High Pain Threshold can be acquired through training in meditative disciplines.

High TL requires advanced general education in scientific ideas *that don't exist yet at your TL.* Each level takes 1,000 hours to acquire! You can't jump multiple levels – you have to learn all the intervening levels. *Low TL* normally isn't "learned" at all; acquiring that disadvantage would mean *unlearning* a great deal of knowledge. Low-tech *methods* for specific skills can be studied, though (see *Skills,* pp. 8-9).

Language Talent is usually inborn and can't be learned directly, but the mechanics of *Point Conversion* (pp. 10-11) can be adapted to gaining it. If you have learned at least four languages besides your native one at Accented comprehension or better, you can invest two earned points in Language Talent.

BODY TRAINING

GURPS distinguishes "learning" – improving skills, IQ, and DX – from training functional strength and fitness to develop more purely physical traits. The latter includes raising ST, HT, HP, FP, Basic Speed, and Basic Move; gaining physical advantages and perks; and losing physical disadvantages and quirks. It's an option even for individuals with Cannot Learn (p. 14). Anyone may make such improvements incidentally while practicing athletic or martial-arts skills, or skills used in physical labor, or directly through focused efforts like weightlifting or functional strength training. There are several ways to represent this:

● If you make monthly study rolls with a primary focus on physical skills, the GM may let you assign study time to physical traits, especially buying off Unfit or adding Fit.

● If you put time into learning physical skills, the GM may *also* allow such time to count toward gaining appropriate physical traits.

● After an extended time acquiring physical skills, the GM may award points earmarked for a specific trait. Five points per six months is usually a reasonable ratio.

● Taking anabolic steroids (p. 14) lets you apply study time to ST or FP at double the normal rate – but with a risk of side effects.

● *Point Conversion* (pp. 10-11) can improve HT, just as it can DX or IQ. At least *four* different HT-based skills must contribute points.

Direct training of physical traits – particularly ST, HT, and Fit (or removing Unfit) – is a common goal of athletes and movie actors.

Reduce the cost of all those learned languages by two points; this provides the other eight points for Language Talent. If you know more than four additional languages at this level, their cost is *also* reduced but the saved points are just lost – you don't become more fluent. On the other hand, any language in which you have only Broken comprehension improves to Accented. (These rules assume both spoken and written comprehension; if you have only one of these, it contributes just one point.)

Magery 0 usually requires inborn talent, mysterious rites, or the gift of a supernatural being. At the GM's discretion, *Magery 1+* may be acquired by point conversion (pp. 10-11), like other Talents. The mage must take points from at least *five* spells to do this.

Perks of some types can be learned: combat perks, many mental and physical perks, shticks, skill perks, and Magic Perks (see **GURPS Thaumatology: Magical Styles**). In particular, Magical School Familiarity, Style Familiarity, and similar perks are a crucial part of styles.

Trained by a Master, Weapon Master, and other traits that enable cinematic feats are learnable from masters who already have those advantages. At the GM's option, it may be possible to attain them entirely from self-study, or even "on the job" as a monk (see *Learning Environments,* p. 32). Alternatively, full mastery may require a quest or a pilgrimage that earns the last few points.

Voice is often inborn, but professional voice coaches can provide training in it.

Disadvantages

Certain disadvantages can be *removed* by studying:

Delusions may be eliminated by an education system that teaches an incompatible view of reality.

Disturbing Voice of some kinds – including *Stuttering* – can be bought off through speech therapy. If you start with Disturbing Voice, however, you can't buy it off and then acquire Voice; only one step of improvement is possible.

Innumerate can be bought off by studying arithmetic (see *Children,* p. 11), whether on an abacus, on paper, or mentally – unless it's a learning disorder or a racial limitation. Mental arithmetic isn't the same as Lightning Calculator; it takes at least as long as calculating on paper. Complex mental arithmetic requires a roll vs. Accounting or Mathematics (Applied or Statistics). Buying off four points of Innumerate can leave a character Math-Shy (p. 15).

Intolerance can be trained away through sensitivity training.

Pacifism (Reluctant Killer) is fairly common at TL5+, where the military and police protect citizens from violence. Armed forces at TL7+ develop systematic methods for training it out of recruits.

Quirks of many kinds *can* be bought off through learning (often amounting to some version of therapy) – but they generally *shouldn't* be! The primary purpose of quirks is characterization. Characters should become more fully defined, not less, with increased time in play.

Social Stigma (Uneducated) can be removed in the course of schooling (see *Children,* p. 11).

Adding Disadvantages

Certain programs of instruction – and some learning environments (p. 32) – do their best to encourage *acquisition* of specific disadvantages. The obvious examples are ethical traits: Code of Honor, Disciplines of Faith, Honesty, Sense of Duty, and Truthfulness. Vow isn't usually suitable; the way to acquire a Vow is to make a promise or take an oath, *and mean it.* Some environments encourage less pleasant traits, such as Callous, Delusions, Fanaticism, Intolerance (especially of a specific group), and Selfish. Workaholic could be seen either way.

The fairest way to figure training time is to assume that *acquiring* a disadvantage takes as long as *removing* it – that is, the time requirement depends on the number of character points involved, not on whether they're added or subtracted. Ordinarily, negative and positive costs don't cancel out to reduce effort or expense; e.g., a -5-point disadvantage and a 5-point trait don't sum to zero and require neither time nor money. The GM may make exceptions in special cases, such as learning one point of a skill with a restrictive quirk (*Montages,* pp. 19-20).

Powers

Characters with powers may upgrade them over time. A hero with an ability but without the associated power Talent may acquire the Talent by spending points on it; regular use of the power may count as "on-the-job" learning or self-study; or a teacher, if one can be found, may offer instruction or intensive training. These processes can add more levels of Talent in the same ways as for skills.

A hero with a power Talent may be able to acquire new abilities of the power. Most stories envision this as learning under stress (*Points-Based Learning,* pp. 5-7 – perhaps alongside *Temporary Enhancements* and *Using Abilities at Default,* **GURPS Powers,** pp. 172-174). Easier methods, such as study and work experience, aren't thought adequate. The power-user may start out with only the Talent and gain a first ability through some extraordinary trauma or heroic feat.

ABILITY TO LEARN

Many traits make learning easier or harder. Take these into account whenever your character sets out to study something!

ADVANTAGES AND PERKS FOR LEARNERS

The following advantages and perks affect learning.

Accelerated Learning

20 or 40 points

This new advantage, especially suited to futuristic and fantastic campaigns, means you assimilate knowledge and skills abnormally quickly. Increase the hours gained from any form of time-based learning *in play* by 50% for Accelerated Learning 1 or by 100% for Accelerated Learning 2. Abilities bought *at character creation* are unaffected. This is essentially the effect of smart drugs (p. 14), but as an inherent advantage, applicable to anything you might study.

Eidetic Memory

see p. B51

Eidetic Memory adds +5 to IQ rolls for *Points-Based Learning* (pp. 5-7), maintaining skills (*Learning and Realism,* p. 6), and *Fleeting Competence* (p. 9), and to maximum points from *Heroic Learning* (pp. 19-20). Photographic Memory grants +10. The techniques Memory Palace (p. 16) and Versification (p. 16) give related benefits.

Fit

see p. B55

Fit gives +1 to HT when determining whether you can get through *Intensive Training* (p. 5). Very Fit gives +2.

Language

see pp. B23-25

If you have *no* comprehension of a language, you simply can't learn anything taught in or using materials in that language (*Medium of Instruction,* p. 18). For self-study from texts or recorded lectures, limited comprehension requires you to take enough extra time (p. B346) to negate the comprehension penalty: multiply study hours required by two for Accented comprehension or by eight for Broken.

Less Sleep and Doesn't Sleep

see pp. B50, B65

Each hour of sleep you can forgo gives you an extra hour for self-study or formal instruction; Doesn't Sleep adds eight hours. This doesn't help with learning on the job (p. 4) – after eight hours, you're still just getting through the day! In conjunction with intensive training (p. 5), the extra hours count only as self-study, because you aren't under close supervision.

When making monthly study rolls (p. 5), each extra hour gives +1 to the roll.

Perks

Several existing perks aid learning:

Cutting-Edge Training (**GURPS Power-Ups 2: Perks,** p. 16) lets you acquire one specific technological skill one TL above your personal TL.

Deep Study (**GURPS Psionic Powers,** p. 63) gives +1 to monthly study rolls in one-on-one formal instruction; if study rolls aren't used, reduce required study time by 10% instead. The teacher must be a personal friend of the learner, trust him deeply ("Very Good" loyalty or better), or have a strong commitment to teaching.

Networked (**GURPS Social Engineering,** p. 79) gives +2 to IQ (or a suitable skill) for a particular type of search roll. New versions are suitable for learning: *Born Researcher* helps you find an archive that has information you need, while *Disciple* benefits you when seeking a teacher for a particular subject.

Special Exercises (**Perks,** p. 21) is normally used to enable body training (p. 12), but it can grant the ability to learn cinematic advantages such as Enhanced Defenses, Enhanced Time Sense, and Extra Attack.

Style Familiarity (**GURPS Martial Arts,** p. 49) lets you benefit from the secret teachings of a style of martial arts, magic, or another field of endeavor.

Unusual Training (**Perks,** p. 21) lets you acquire a single cinematic skill or technique, subject to restrictions that make it "realistic."

The GM may also allow a new perk.

Advanced Learning

Despite having Social Stigma (Uneducated) (p. 15), you have been able to master one particular "book-learned" skill at adult or possibly advanced levels. This perk especially suits prodigies in such fields as Hobby (Chess), Mathematics, Musical Composition, or Tactics.

If you buy off the Social Stigma, this perk loses its value. In compensation, you can reduce the cost to remove the disadvantage by one point per Advanced Learning perk, up to a total of four points saved. Five perks automatically buy off the Social Stigma.

ANABOLIC STEROIDS

Taken orally or injected, anabolic steroids double learning rates for a number of skills: most HT-based skills, including Flight, Hiking, Lifting, Running, Skating, Skiing, and Swimming; some other skills that involve endurance, such as Bicycling, Boating (Unpowered), and Oarsman; Throwing; and many Sports skills. They also affect physical training (*Body Training*, p. 12).

Steroids cost about $20/week on the gray market; black-market steroids cost *at least* 1.5× as much. After each six months of use, or any single shorter period, roll vs. HT. Failure means losing Voice (if you have it), one level of Appearance (if female), or one level of HT – or gaining Bad Temper (15) or Bully (15) (a further step of either if you already have it), or Sterile. Critical failure results in all of these that apply!

SMART DRUGS

A variety of nootropics or "smart drugs" are available in the early 21st century (TL8). Their original use was as treatments for deteriorating brain function – in *GURPS* terms, they offer Mitigator limitations for Absent-Mindedness, Confused, Indecisive, Short Attention Span, and other mental disadvantages. However, they're also used as learning aids, though their long-term effects are debated. The GM may allow them to increase the hours of learning gained from a period of study by 50% (equivalent to Accelerated Learning 1, p. 13). Seeing significant game effects requires continuing use, at a cost of $20/week.

More-potent nootropics may become available at TL9. Treat such drugs as *doubling* the learning rate (equivalent to Accelerated Learning 2). For example, self-study becomes the equivalent of standard classwork. Cost is $50/week.

Single-Minded

see p. B85

Your +3 applies to IQ rolls to acquire a skill or a technique after a successful default roll (*Points-Based Learning,* pp. 5-7). It also adds to Will when making monthly study rolls (p. 5), but only for a single subject; subtract 50 hours from any left-over time you assign to other subjects. It has no effect on study rolls for intensive training. In regular time-based learning, add 30% to the hours gained from a given period of study *except* during intensive training.

Talent

see pp. B89-91

Each level of Talent reduces the time needed to learn the included skills by 10% (20 hours per point). For simplicity, when making monthly study rolls (p. 5), the GM may instead add your Talent to your Will, so long as your focus is on skills that benefit from your Talent. Magery grants the same benefits when focusing on spells or Thaumatology. Don't apply *both* the Will bonus and the time reduction!

Trained by a Master and Weapon Master

see pp. B93, B99

These advantages give you the ability to learn cinematic martial-arts skills (see *Skills,* pp. 8-9). Similar traits such as Gunslinger and Heroic Archer also grant this benefit.

DISADVANTAGES AND QUIRKS FOR LEARNERS

A number of disadvantages and quirks influence (usually hinder!) learning.

Absent-Mindedness

see p. B122

When making monthly study rolls (p. 5), pick *one* thing you're seriously interested in studying. You gain full benefit for that subject. Subtract 50 hours from any leftover time you assign to other subjects.

Cannot Learn

see p. B125

Your mind or nervous system is incapable of retaining new capabilities. The primary effect is that you don't learn from experience: You cannot spend earned points on DX, IQ, mental advantages, skills, techniques, or any formally physical trait the GM feels has a mental component (e.g., Ambidexterity). You also cannot acquire new familiarities (see *Familiarity,* p. B169). Similar stipulations apply to *Improvement Through Study* (pp. B292-294).

You can still increase ST and HT, and add anything the GM deems purely physical for a being of your kind – again, regardless of rules classification. *Physical* training can add any trait the GM rules could result from exercise alone, even one unavailable for earned points (see *Body Training*, p. 12).

Cannot Learn doesn't interfere with gross intervention via cybernetics, surgery, supernatural wishes, and so on (see *Transformations,* pp. B294-296). It doesn't prevent *temporary* skill acquisition using Modular Abilities (p. B71), either; in fact, beings with computer brains often possess both traits.

Dyslexia

see p. B134

You can't learn from written or printed texts. You can still acquire skills based on such texts *if* you have a teacher who's willing to present the material orally (*Medium of Instruction,* p. 18). Self-study of book-learned subjects requires *four* hours, rather than two, per hour of learning – and for many subjects, it isn't possible at all.

Innumerate

see p. B140

You can't learn Computer Programming, Economics, or any skill that benefits from Mathematical Ability, and you have no default with such skills. You *can* still study and use Astronomy (Observational).

Laziness

see p. B142

You gain no benefit from on-the-job learning, because you avoid tasks that challenge your abilities. In other forms of time-based learning, you do minimal work – reduce the hours gained by 50%. If using monthly study rolls (p. 5), you have -5 to Will instead.

Non-Iconographic

see p. B146

You can't learn from maps, charts, or graphs, or use graphic user interfaces on computers (*Medium of Instruction,* p. 18). You *can* benefit from graphic materials if you have a teacher who's willing to explain the content in words. You can never acquire or use Cartography, Heraldry, Symbol Drawing, or any other skill that requires understanding patterns and symbols.

Quirks

These existing quirks affect learning:

Attentive (p. B163) actually *helps* learning, in the same way as Single-Minded (p. 14), but the monthly study roll bonus is +1, while the percentage increase in regular time-based learning is 10%.

Can't Read Music (**GURPS Low-Tech Companion 1: Philosophers and Kings,** p. 19) means you're unable to learn a new musical piece from sheet music; you must learn every new tune by ear.

Incompetence (p. B164) makes you unable to acquire a particular skill and gives you an extra -4 to its default. *College Incompetence* (**GURPS Power-Ups 6: Quirks,** p. 34) renders you unable to learn an entire college of spells.

Layabout (**Quirks,** p. 19) doesn't prevent on-the-job learning, but otherwise it's quirk-level Laziness; it reduces the hours you gain from any form of study by 10%, or gives -1 to monthly study rolls.

Math-Shy, Mild Dyslexia, and *Symbol-Shy* (all **Quirks,** p. 31) respectively hinder learning quantitative subjects (see *Innumerate,* above), learning from texts (see *Language,* p. 13), and learning from graphical material (see *Non-Iconographic,* above). This reduces hours of study gained in the affected skills by 10%, or gives -1 to monthly study rolls.

Stereotype (**Quirks,** p. 16) could apply to the typical behavior of any group of students, from medieval Goliards to campus radicals to geeks.

The GM may further allow a new quirk.

Time-Server

You work conscientiously or acceptably at doing your job, but treat it as a routine. Time you spend working doesn't count toward on-the-job learning *at all* – you'll retire with the same level of skill you started with. It's perfectly realistic for many employees to pick up this quirk a few years after they're hired! If you lack this quirk, you may add it in return for your first point in a previously unknown Easy or Average job skill when you accept new employment. It will then affect all future jobs until you buy it off . . . uninspiring work "anybody could do" can be permanently demoralizing.

Example: Janet Jones is a researcher in Rubria; she has high levels of Mathematics and Physics skill, and a respectable IQ of 13. The armies of Cerulea conquer Rubria and, in a fit of paranoia, ban scientific careers for its citizens, leaving Jane with no prospects. Eventually, she finds work as a maid for a comparatively decent Cerulean "advisor." The GM allows her player to add Housekeeping-13 [1] to her character sheet, paying for it by taking Time-Server; she hasn't done much housework since entering the university at age 17, but she can figure it out when the alternative is going hungry. She does an adequate job but is uninspired and bitter – and if Rubria throws off its foreign overlords, she'll need to buy off Time-Server before she's fit to do her old job again.

Social Stigma (Uneducated)

see p. B156

You can't know or study any "book-learned" skills, and you have no defaults with such skills, even if most people in your culture have them. You can make IQ rolls to know practically useful things, but you haven't acquired significant abstract knowledge. You must buy this off before studying knowledge skills or IQ-based technological skills (see *Children,* p. 11).

Unfit

see p. B160

Unfit gives -1 to HT when determining whether you can get through *Intensive Training* (p. 5). Very Unfit gives -2.

SKILLS FOR LEARNERS

Several skills can be useful in learning.

Autohypnosis

see p. B179

Autohypnosis grants *one* of two possible benefits to time-based learning:

● If you're studying a mental skill from books or other media, in quiet surroundings, a successful Autohypnosis roll lets you maintain concentration without a teacher or class structure. Each hour of study time counts as 3/4 of an hour of learning, rather than as half an hour.

● In *any* form of time-based learning (pp. 4-5), a roll at Auto-hypnosis-4 lets you set aside the negative effects of fatigue. This grants an extra two hours of study time on that day.

When making monthly study rolls (p. 5), you can use Auto-hypnosis as a complementary skill (below) to your Will roll.

COMPLEMENTARY SKILLS

At the GM's option, one skill may be used to aid another. For example, a politician who has to make a speech might sit down ahead of time and write out what he wants to say; this would be using the *complementary skill* of Writing to aid the *master skill* of Public Speaking. A successful roll against the complementary skill gives +1 to the next roll against the master skill, or +2 on a critical success; a failed roll gives -1, or -2 on a critical failure.

To encourage teamwork, one person's complementary skill can aid another person's primary skill. At the GM's discretion, several complementary skill rolls may apply to the same primary skill. No helper can provide more than one complementary skill, and each helper must use a different skill. A complementary skill *can* be the same as the primary skill, if it's used in a meaningfully different way. Skill rolls will normally be limited to one per PC, but the GM may permit such rolls by appropriately skilled NPCs, especially Allies or Contacts.

Computer Operation

see p. B184

You can use computer-based instructional materials in place of books (see *Resources,* pp. 28-31). Even one point in the skill gives you full use of such resources. If you only have Computer Operation at default, decrease hours of learning gained from such study by 10%, or make monthly study rolls (p. 5) at -1.

Linguistics

see p. B205

When studying a language without a teacher (see *Languages,* p. 11), you can roll vs. Linguistics once per month. Success lets you learn at the same rate as if you had a teacher.

Observation

see p. B211

A roll against Observation while you watch people use a skill allows you to learn the skill as if watching a demonstration or an instructional video (see *Resources,* pp. 28-31). Treat this as self-study (p. 4).

Research

see p. B217

Roll vs. Research to find suitable books or other materials (*Resources,* pp. 28-31) for self-study of a new skill, given a library or other archive. To consult a computer database, you must also know Computer Operation, but you may treat that skill as complementary (above) to Research.

TECHNIQUES FOR LEARNERS

A few techniques are available to aid the learning process.

Dream Rehearsal

Hard

Default: Dreaming.
Prerequisite: Dreaming; cannot exceed Dreaming+5.

Consciously reliving successful default skill use in dreams can help you acquire the skill. Roll vs. Dream Rehearsal, halve your margin of success, and round up to find your bonus to IQ rolls for points-based learning (pp. 5-7). Any success gives a minimum of +1; critical success always gives at least +5.

Memory Palace

Average

Default: IQ-5; cannot exceed IQ.

As described by Roman orators, who called this the *method of loci,* you visualize a building, including its furnishings and rooms. To retain information (e.g., the key points of a speech), link each fact to an object that you place somewhere in the building. For example, if the murder weapon was a knife, visualize a bloody knife on the kitchen table.

You can roll against Memory Palace to recall specific facts (roll at IQ-5 if you have no training). Each point invested in the technique gives +1 to IQ rolls for *Points-Based Learning* (pp. 5-7) and to the number of points you can spend on *Heroic Learning* (pp. 19-20). Putting five points into Memory Palace means you've acquired Eidetic Memory! If you already have Eidetic Memory, learning Memory Palace is of no benefit – it doesn't help you advance toward Photographic Memory, even if that's learnable in your campaign.

Thirty days hath September,
April, June, and November.
– Traditional mnemonic

Versification

Average

Default: Poetry.
Prerequisite: Poetry; cannot exceed Poetry+4.

You can put information in poetic form to aid in remembering it. Your verses aren't literary art, but they're understandable and catchy. For anything you've versified, you recall specific details by making an IQ roll, as with Eidetic Memory. If Eidetic Memory would give you +5, you gain +1 to IQ per *two* points of success at a Versification roll, rounded up. Any success gives +1, and a critical success always gives at least +5.

TEACHERS AND TEACHING

Almost all **GURPS** characters learn during play. Not nearly so many teach. Still, teaching can be important to adventurers, as an activity they engage in or as a service they make use of.

From the viewpoint of students or prospective students, teachers are resources, able to provide new abilities. Teaching is the basis of formal instruction and intensive training; its success can affect how much the heroes learn. In some campaigns, encounters with teachers, in the classroom or elsewhere, can be roleplayed (*Learning as Drama,* pp. 7-8).

From the viewpoint of teachers, teaching is an occupation and a source of income. The associated skills can also be helpful in attaining adventuring goals; from Professor Aronnax in *Twenty Thousand Leagues Under the Sea* to Indiana Jones, many fictional heroes have been academics. And again, teachers' work and their relationships – with students and with each other – can be dramatic in their own right.

THE PROCESS OF TEACHING

The activity of teaching – like that of learning – can be portrayed in different ways, depending on its narrative function in the adventure or campaign.

There is no royal road to geometry.
– Euclid to Ptolemy I

TEACHING AS A JOB

Teaching is a skill in **GURPS,** but a somewhat unusual one: Its most important effect is enabling *others* to develop new capabilities. It's a form of empowerment, if a slow-motion one.

Teaching Skill and Class Size

For Teaching, as for most skills, a skill level of 12 represents ordinary professional competence. That's the minimum requirement for enabling some sorts of learning. Yet many people pass on their skills without professional training as teachers, perhaps to one or two students at a time.

In terms of *Task Difficulty* (pp. B345-346), teaching one or two people is an "Easy" task: +5. Teaching skill defaults to IQ-5, so this bonus allows someone without training to roll against unmodified IQ. For larger numbers of students, look up class size in the "Linear Measurement" column of the *Size and Speed/Range Table* (p. B550), find the corresponding penalty in the "Speed/Range" column (round intermediate class sizes up), and apply it as a *further* modifier to skill. For example, a class of 11-15 students gives -5, canceling the bonus entirely and requiring a roll vs. IQ-5 for an untrained person or Teaching

for a trained one. Other modifiers may apply; see *Medium of Instruction* (p. 18), *Technological Channels* (pp. 18-19), *Ability to Teach* (pp. 20-24), and *Resources* (pp. 28-31).

The result is *effective* Teaching skill. In formal instruction (pp. 4-5), either an effective *or* base Teaching skill of 12 counts as being a qualified instructor. Thus, a fully trained professional can work with a class of any size. A less skilled teacher can handle a small class, such as four or five fellow adventurers who want cross-training (net Teaching modifier of +3). Even one point of Teaching skill can be a worthwhile investment for this purpose. In an emergency, anyone with useful knowledge can attempt to impart it, with lower Teaching skill or even at default, to a class of any size.

In a campaign whose viewpoint characters are the learners, the GM may treat Teaching skill simply as a professional qualification, without requiring skill rolls. A successful search locates a competent instructor (*Students and Teachers,* pp. 25-26). The students pay their tuition and get their hours of instruction, just as if they were renting a room or buying equipment. This is a good approach for players who want to keep the details of training off-camera and go straight to adventuring.

But it's also possible to have Teaching rolls affect the outcome of time-based learning – and if the viewpoint characters are the teachers, the players will probably expect this. On a successful Teaching roll, treat the process as formal instruction (pp. 4-5). Critical success means the instructor does an inspiring job; for that class day, the students gain 50% extra learning. On a failure, the teaching is of no benefit; the students can resort to self-study of their textbooks or lecture notes (*Self-Study,* p. 4), or the teacher can repeat the lesson.

Critical failure actively sets the students on the wrong track; they learn nothing during the class, and they need to have the confusion cleared up before they can progress further, either by another session and a successful Teaching roll, or by *two* sessions' worth of self-study and an IQ roll.

Intensive Teaching

Intensive training (p. 5) has more-stringent requirements. Base Teaching skill must be at least 12, and *effective* skill must be no less than 14, whether through higher base skill or smaller class size. If there are more than 15 students in the class, *double* the size penalty. Even in an emergency, trainers must have at least one point in the Teaching skill.

The consequences of Teaching rolls also differ for intensive training. Intensive methods push students to the edge of their inner resources to maximize learning. Success at Teaching indicates the students get through a day's instruction without side effects. Failure means the instructor misjudged their endurance; each student must make a HT or Will roll to avoid the bad effects described under *Study Rolls for Intensive Training* (p. 5). At the GM's discretion, critical failure may give -2 to this roll.

BEHIND THE CURTAIN: WHEN TEACHERS FAIL

A newly hired teacher, faced with 31-50 students, might have an effective Teaching skill of 9. When he teaches a class, he'll fail 62.5% of the time. But if he makes monthly job rolls, only a 17 or 18 on the dice indicates actual job problems. So what do all those "failures" represent?

● Except on a *critical* failure, class order is maintained: students stay at their desks or lined up, and don't do anything disruptive.

● Many class routines count as "Easy" tasks (see p. B345): students working at their desks or lab benches, class discussion, repetition of previously learned material, and practice of physical routines. These are part of the learning process but grant bonuses from +1 to +5. A failed Teaching roll means the students weren't giving the activity full attention or effort.

● Presenting new material is usually a task of "Average" difficulty. Getting such information across to students may take several sessions and varied presentations. A failed Teaching roll means the new material hasn't sunk in.

Teachers and Assistants

If you have assistants with both the skills(s) being taught and Teaching skill, they can decrease the penalty for a large body of students. Roll vs. Administration, Leadership, or a *relevant* Group Performance specialty to make effective use of the teaching pool. On a success, divide the number of students by the number of teachers and use the result to find the penalty for class size. Make one roll vs. your own Teaching skill for the entire group.

Assistants who lack Teaching skill but have a skill you want to teach can demonstrate the skill, practice it with students, or otherwise contribute to your efforts. This gives +1 to your skill if you have one companion, or +2 if you have more than one.

Assistant teachers cannot *also* contribute bonuses as demonstrators, practice partners, etc. – choose one role or the other.

Medium of Instruction

Teaching requires the ability to communicate with students. The normal assumptions are that the students (1) have Native comprehension of the same language as the teacher, and (2) are in the teacher's physical presence, where they can watch him demonstrate practical methods and have him observe their attempts to use them. If *both* conditions aren't met, learning is hindered.

With *no* common language, *knowledge* skills can't be taught at all. A successful Gesture roll allows teaching IQ-based technological skills at -5, or other technological and practical skills at -2; failure means IQ-based technological skills can't be taught at all, while those other skills are taught at -5. See *Skills* (pp. 8-9) for definitions of these categories. If an instructor speaks a language, success at Gesture permits teaching that language at Broken level at *no* penalty.

Instruction in a common language – including a sign language – is subject to *both* the teacher's and student's comprehension penalties in the language being used. For practical skills, if the penalties for using gesture alone (above) would be less severe, use those instead. Knowledge skills can *only* be taught in language, at whatever comprehension penalties apply.

If *only* written language is used, teaching is at half speed, and penalties for written rather than spoken comprehension apply. *Correspondence* allows teaching at a distance, via letters or email. Time spent in correspondence can *also* count as self-study of a written language (see *Languages,* p. 11).

If the students and teacher can't watch each other, IQ-based technological skills are taught at -2 and other IQ-based practical skills at -5; skills based on other attributes can't be taught at all. This would apply, for example, to a voice-only channel or to correspondence. Students or teachers who are used to blindness are an exception; in that case, non-IQ-based practical skills can be taught at -5 (the standard penalty for working by touch; see p. B233) and melee combat skills at -6. If *both* student and teacher are used to blindness, apply the penalty just once. No penalties for lack of physical presence apply when teaching knowledge skills, but the GM may make exceptions for skills that require looking at things, such as Connoisseur (Visual Art) or Diagnosis.

Technological Channels

Starting at TL5, electronic communication can carry instruction. Two-way channels can carry text, voice, or video. One-way channels can carry recorded voice or video (one-way *text* isn't a new technology!).

Recorded voice can convey information comparable to that in a book or a lecture (*Alternative Skills for Teachers,* p. 23), but can't actually teach. An exchange of recorded voice messages allows actual teaching equivalent to written correspondence.

Recorded video accompanied by text or voice can serve as a demonstration, giving +1 to Teaching with suitable skills if the entire class sees the same image, or +2 if each student has his own display. An exchange of recorded video messages is equivalent to correspondence, but permits teaching *all* technological skills at -2 and *all* other practical skills at -5.

Real-time two-way interaction by voice alone is covered in *Medium of Instruction* (p. 18). Interaction via two-dimensional video allows teaching any skill; technological and practical skills are taught at -1 if IQ-based, -2 otherwise. Three-dimensional virtual-reality interaction imposes *no* penalty for *any* skill.

Job Rolls

Teaching can be treated as a job with monthly job rolls (p. B516), at the rates of pay discussed under *Instructional Methods* (pp. 31-32). For a school employee (see *Academic Organizations*, pp. 27-31), the job probably has a fixed salary. A freelancer earns 10% more or less per point of success or failure on the job roll. In either case, a critical failure should have bad consequences!

In a campaign focused on students, the GM may still have teachers make monthly Teaching rolls, based on effective skill (*Teaching Skill and Class Size,* pp. 17-18). These affect an entire month's work. Critical success inspires the students, giving them +5 to study rolls (p. 5). Critical failure means the instruction imparts serious misunderstandings or bad habits. Treat this as a quirk-level Delusion about the subject; the students have -1 to further study rolls until the Delusion is removed through time-based learning (pp. 4-5). Where this affects a PC, the player may suggest an application of the skill where the Delusion would impose a penalty; if the GM approves, then after making the skill roll *with the penalty,* the Delusion can be bought off as described for points-based learning (pp. 5-7).

In intensive training, a successful Teaching roll allows the students to make their normal HT or Will rolls to get through the course (*Study Rolls for Intensive Training,* p. 5). A failed Teaching roll gives them -3 to HT or Will – and at the GM's discretion, critical failure might inflict -6! Also at the GM's discretion, critical success may let the instructor spot students who have been pushed too far: treat a student's ordinary failure as a success, and a critical failure as an ordinary failure – but the student cannot attempt the course again until he improves his HT or Will.

TEACHING AS DRAMA

If learning is roleplayed (*Learning as Drama,* pp. 7-8), teaching can be as well – and in the same kinds of scenes. Other sorts of drama may emerge in a campaign where teachers are the protagonists.

Montages

There's a job to be done: a village to defend against bandits or monsters, a play to stage, or a damaged ship to repair. But you don't have trained people to do the work! You must inspire unskilled people to volunteer, and then show them how to do the job.

To attempt this, you need to know the skill to be taught, and must have both Teaching and Leadership at 12+. You can substitute a suitable Group Performance specialty for Leadership when teaching a performing art.

The required skill roll is made against Teaching. The normal time required is one week per skill to be learned, with shorter or longer periods providing modifiers: -9 for a day, -7 for a weekend, -3 for a five-day week, +2 for a month, or +4 for a season. A teacher who's Methodical (p. 22) can spend a full year and gain +6. In a highly cinematic campaign, the GM might allow *instant* teaching at -10, but only for a single skill. The usual bonuses or penalties for class size (pp. 17-18) also apply. Superior training facilities can grant bonuses (p. B345), but working without equipment or facilities inflicts no penalties. Assistants give the usual benefits (p. 18).

If you need to teach multiple groups of students, but they don't all have to pick up all the skills required, you have the option of dividing them up into subgroups and working with them in parallel. This is quicker – base time in weeks equals the largest number of skills any subgroup has to learn. However, you're at a penalty for divided attention: -2 per additional group you must teach.

Your students need not have unspent character points to put toward new knowledge or abilities. If your roll succeeds, they *temporarily* gain one point in each required skill. This lasts for long enough to perform the task they're preparing for. If you fail, they learn nothing.

As an alternative, the GM may decide that this kind of teaching *does* grant permanent knowledge of skills, but simultaneously creates quirks limiting their use. **GURPS Power-Ups 6: Quirks** offers many suitable possibilities, notably Can't Read Music, Combat Hesitancy, Extremely Limited Overconfidence, Lazy Skill, Methodical, Overspecialization, Preferred Tactics, and Slow Reflexes. This gives students the option of buying off the quirks through further training. The GM may allow them to exceed the campaign's quirk limit until then.

The setting for heroic learning is a retreat.

Heroic Learning

Under the preceding rules, students neither need character points to participate in a montage nor gain permanent character points by doing so. But what if they have points to spend? A variation on the theme can grant them a sudden leap in their abilities. (See **GURPS Martial Arts,** p. 147, for *The Training Sequence:* a related alternative with more restrictive requirements.)

Heroic learning requires an instructor who can use the Legendary Teaching technique (p. 24) at level 12 or better, and who has both a higher level *and* more points in the skills being taught than his students have. Students who wish to participate *must* have unspent character points. To learn cinematic skills or techniques, they must have the prerequisite advantages or acquire them during their training.

The setting for heroic learning is a retreat or a similarly focused period (*Retreats and Workshops,* p. 30). The standard time required is a week, as for other montages, and the same modifiers for longer or shorter intervals apply.

The subject matter must be a coherent body of knowledge or skill, such as a martial-arts style. The GM may define suitable sets of abilities for science, social skills, magic, or other spheres.

At the end of the chosen learning period, make a Legendary Teaching roll, modified as usual for class size, time spent, and facilities. Success lets students spend points up to the margin of success (minimum one point) *or* their unspent points, whichever is less, on the skills being taught. Critical success grants each of them one additional *free* point to be spent the same way. Failure means the students learn nothing. On a critical failure, they also suffer some form of harm: combat injury, lab accident, magical backfire, or something comparably bad.

Students with Eidetic Memory can spend up to five extra earned points, while those with Photographic Memory can spend 10 points more. Each point spent on the Memory Palace technique (p. 16) adds one extra point to the limit. Lower the final limit by one point for students with Layabout (p. 15), or *halve* it for those with Laziness.

This kind of sequence can also be run from the students' viewpoint; see *Initiation* (p. 8).

Coercive Teaching

Not all lessons are desired! Teachers may confront unwilling students who must be driven to learn: conscripts, prisoners, slaves, or simply recalcitrant children who would rather not be in school.

Ordinary coercive teaching follows the rules for formal instruction (pp. 4-5) but assumes the students have no desire to work – motivation must be supplied, whether by punishments, threats, or bribes. This requires Influence rolls, usually on a monthly basis, though the GM may provide scenes of student defiance to be overcome (*In the Classroom,* p. 26). The skill used for punishments or threats is Intimidation; teachers may resort to specious intimidation (p. B202), but if this fails, any later attempts at *specious* intimidation with the same class will fail also. Fast-Talk or Psychology works for bribes. Parents can also use these methods on their own children!

Intimidation is rarely effective in motivating self-study; students who aren't actively supervised can slack off. It can make people work, but they seldom learn from their efforts.

The coercive equivalent of intensive training is a quite different process: brainwashing. Treat a brainwashing attempt as a Regular Contest of Brainwashing skill (p. B182) vs. Will, rolled once per day. The brainwasher can use Psychology (Applied) as a complementary skill (p. 16). Brainwashing is normally done to one person at a time.

Usually, what's "taught" by brainwashing is behavioral patterns in the form of new mental disadvantages. Adding a quirk requires a single victory. Reorienting an existing disadvantage (for example, changing the object of Fanaticism) takes one victory per -5 points of trait value; Will is at +3 if the old orientation is actively opposed to the new one. Adding *or removing* a disadvantage – e.g., removing Pacifism (Reluctant Killer) – calls for one victory per -1 point. (This variety of Pacifism can be removed by regular military training, too; see *Disadvantages,* p. 12.)

In a cinematic campaign, brainwashing might even be able to grant skills and techniques – say, to assassins or spies. This is similar to removing a disadvantage: It requires one victory per point. In preparation for deep-cover work, brainwashing can confer the Rehearsed Role perk (**GURPS Social Engineering,** p. 79).

In futuristic settings, a cognitive programming (p. 7) variant may provide a faster way to achieve these effects. The subject is placed in a virtual environment that generates simulated high-stress experiences. Each day of exposure requires a roll vs. HT for a standard program, or HT-2 if the process is supervised by a handler with Brain Hacking at 12+. Treat a failed HT roll as a failed Fright Check (pp. B360-361) – but in addition to the rolled aftereffects, it leaves the subject unable to resist! A Brain Hacking roll can then add a quirk or reorient a disadvantage; rolls to make multiple changes, or to add or remove disadvantages, are at -1 to skill per five minor changes or per full -5 points of disadvantages imposed or removed. If dream teaching (see *Virtual Environments,* p. 30) is available, its abuse for this purpose gives +2 to Brain Hacking skill, but the roll is *resisted* by Dreaming skill or Will, whichever is higher.

ABILITY TO TEACH

A variety of traits can help or hinder the process of instruction.

ADVANTAGES AND PERKS FOR TEACHERS

Many advantages and perks can make a teacher more effective.

Altered Time Rate

see pp. B38-39 and *GURPS Powers,* pp. 41-42

If both teacher *and* student have Altered Time Rate, this speeds up learning. Multiply real hours by (1 + advantage level) to find effective hours. If their levels differ, use the multiplier for the lower level. Altered Time Rate with the Super-Speed or Non-Combat Speed modifier can be applied in this way to give an even larger factor, but not with combat skills – a student practicing combat is considered to be *in* combat.

Blessed

see pp. B40-41

A new version of this advantage is relevant to skill acquisition:

Enlightened Teacher: You're capable of acquiring the Legendary Teaching technique (p. 24) and of using it to teach *any skill or technique you know.* This doesn't open up any other cinematic skills or techniques to you; to learn and teach those, you must meet their usual prerequisites. Other teachers and prospective students react to you at +1. *10 points.*

Charisma

Charisma doesn't add to Teaching skill, but if you have a net skill penalty for class size (*Teaching Skill and Class Size,* pp. 17-18), Charisma can cancel it out, letting you teach larger classes more effectively.

Example: Shanya Bennett is a new hire with Teaching-12, which isn't raised by her Charisma 2. She has effective Teaching-17 for working with one or two students; with a small class of 11-15, she functions at Teaching-12. But at her inner-city school, no class is that small! Her Charisma cancels out -2 from class size, giving her Teaching-12 for up to 30 students; for her actual classes of 35-40, she's at -1 instead of -3, giving her Teaching-11 rather than Teaching-9.

Empathy

Empathy and Sensitive don't benefit teaching in general – they work with individuals, not with groups. But if you're tutoring a single student, being able to sense confusion gives you +3 to Teaching for Empathy, or +1 for Sensitive. The bonus to Detect Lies also has its uses!

Higher Purpose

Teachers may have some form of this. "Pass on my knowledge" or "Bring literacy to the poor and disadvantaged" can justify +1 to suitable dice rolls.

Illusion

The ability to create illusions to illustrate your lessons gives +2 to Teaching.

Mind Control

Mind Control with Conditioning or Conditioning Only gives +4 to Brainwashing skill (*Coercive Teaching,* p. 20).

Mind Reading

Similar to Empathy, but the bonus is +4; the instructor knows *how* the student has gotten confused.

Perks

Two Telepathy perks from p. 63 of **GURPS Psionic Powers** are especially useful to teachers:

Deep Study in a teacher working one-on-one grants the *student* the same benefits as if he had the perk himself (p. 13). If both have the perk, they don't get double benefit!

I Know What You Mean uses telepathy unconsciously to aid understanding, granting +2 to the teacher's default Gesture rolls (p. 24), and removing two points (total) of penalties to Teaching rolls for either the teacher or student's Broken comprehension of a language (*Medium of Instruction,* p. 18).

Telecommunication

Telecommunication (Telesend) gives +2 to Teaching with a single student. If it has the Broadcast enhancement, the bonus applies with an entire class.

Unfazeable

Experienced teachers may have this, especially in cinematic campaigns.

Voice

Like Charisma (above), Voice can offset penalties for large classes, erasing up to -2.

DISADVANTAGES AND QUIRKS FOR TEACHERS

Various disadvantages and quirks are likely to hinder teaching, or are stereotypically common among teachers.

Absent-Mindedness

see p. B122

You can teach the subject that actually interests you, but you're at risk of not being fully prepared, which gives you -2 to Teaching skill; roll vs. IQ-2 to avoid this. For *other* subjects, you have -5 to skill! Best suited to comedic campaigns.

Bully

see p. B125

Teaching a class can give opportunities for bullying, usually in the form of sarcasm or making one student a target for other students' harassment. If a school practices corporal punishment, more direct forms are possible. Your class is poorly motivated, with -2 to loyalty rolls; the GM may assume Poor loyalty (*Loyalty,* p. 26). If you try to motivate students (*In the Classroom,* p. 26), you're at -2 with any Influence skill other than Intimidation.

Callous

see p. B125

Indifference to other people's feelings gives you -3 to Teaching. However, in coercive teaching, the use of Intimidation to gain compliance is at +1.

> *Specialization is for insects.*
>
> – Robert A. Heinlein,
> ***The Notebooks of Lazarus Long***

Deafness and Hard of Hearing

see pp. B129, B138

Being Hard of Hearing limits your ability to understand your students: -4 to Teaching. You can avoid this penalty if you communicate with your students entirely in sign language or in writing.

Deafness prevents *teaching* as such via spoken language – but if you have a spoken language, you can *present information* in lectures (*Alternative Skills for Teaching,* p. 23). Some deaf people have Disturbing Voice (below), however.

If you have any points in Lip Reading, these problems don't affect you, but penalties for large classes are *doubled.* (Bonuses for small classes are unaffected.)

Delusions

see pp. B130, B164

If you have a Delusion, it may hinder your students' learning. At the GM's discretion, it may count as having minimal, partial, or general relevance to the subject being taught.

For minimal relevance, treat it as a quirk (below). For partial relevance, apply a penalty to Teaching equal to the reaction modifier; for general relevance, *double* the penalty. If the roll fails within a margin equal to the penalty, your students must roll vs. IQ. Success lets them recognize the Delusion for what it is and disregard your teaching; they have to learn by self-study. Failure means they come to share your Delusion (for the effects, see *Job Rolls,* p. 19).

Disturbing Voice

see p. B132

Not quite the opposite of Voice: The -2 directly reduces Teaching skill at *any* class size.

Quirks

Some quirks affect the process of teaching:

Delusions at quirk level (p. B164) don't hinder teaching, but students will recognize them and find them amusing or annoying. The same applies to any Delusion (above) with minimal relevance.

Disorganized (**GURPS Power-Ups 6: Quirks,** p. 18) can represent having an office piled with manuscripts and open books. Add 30% to the time required to organize your possessions (+1 per 1d, for times determined by dice rolls).

Distractible (p. B164) is a less harmful variant of Short Attention Span (below). You're at -1 to accomplish long tasks, including teaching; your students suffer -1 to monthly study rolls.

Fashion Disaster (**Quirks,** p. 14) is a stereotypical failing of unworldly scholars. You have -1 to reaction rolls outside the academic environment.

Inaccessible Idioms (**Quirks,** p. 16) can represent a compulsively sesquipedalian idiolect. You have -1 to rolls to sell an idea to a nonacademic audience.

Methodical (**Quirks,** p. 19) is appropriate for teachers who insist on scholarly or scientific rigor. You must work slowly enough on long tasks – such as preparing lessons – to get +1 for double time, or suffer -1. However, you can get up to +6 for taking 60× the usual time!

Overspecialization (**Quirks,** p. 31) fits the advanced researcher having to teach a general course. For example, a normal specialist might have Literature (Greek Lyric Poetry)-14, other Literature-12, and Connoisseur (Literature)-9; you have Literature (Greek Lyric Poetry)-14, other Literature-9, and Connoisseur (Literature)-6!

Sense of Duty

see p. B153

Your students count as a small group (-5 points) for the purpose of this disadvantage.

Short Attention Span

see p. B153

In a single class, your attention is likely to wander midway through. If you fail a self-control roll, you automatically fail the Teaching roll, too.

When making monthly job rolls, Short Attention Span can have one of two different effects, depending on who the campaign's viewpoint characters are:

● If you're a *teacher*, a single self-control roll is required. Failure means wandering off your lesson plan, not making a lesson plan, being distracted by personal concerns, or similar. Don't make a skill roll – you accomplish nothing that month! Your students can attempt to master the subject on their own.

● If the focus is on *students*, only part of their class time is useful. Study rolls have a penalty based on the teacher's self-control number: -9 for Short Attention Span (6), -6 for (9), or -3 for (12). Short Attention Span (15) is amusing or annoying to students, but hinders learning no more than the Distractible quirk (p. 22).

Shyness

see p. B154

This disadvantage gives a penalty to Teaching rolls: -1 if Mild, -2 if Severe, or -4 if Crippling.

SKILLS FOR TEACHERS

Besides Teaching (p. B224), a number of skills can be of help to teachers.

Acting

see p. B174

Acting can be used to cultivate a persona; see *In the Classroom* (p. 26).

Brainwashing

see p. B182

Standard Brainwashing is sometimes used with *Coercive Teaching* (p. 20).

The Brain Hacking variant can be used in futuristic settings with advanced cognitive technologies. While it often involves direct physical modification of the brain's internal structure, that isn't required – any more than hacking a computer requires opening up the case. Immersive virtual experiences based on advanced knowledge of brain functions can have similar effects, perhaps enhanced by drugs. This can be used coercively, but applications also include accelerated learning (*Cognitive Programming*, p. 7) and therapy for mental disadvantages. Memetics (a Talent; see **GURPS Power-Ups 3: Talents,** p. 12) can provide bonuses to this "software" version of Brain Hacking.

Expert Skill

see *GURPS Fantasy,* p. 135

Teachers often know the following specialty in low-tech settings:

Bardic Lore is a body of knowledge in verse form, taught by bards or sages in a (usually) nonliterate society. It can substitute for Diagnosis, Geography (Regional), History, Law, Naturalist, Occultism, or Theology within the society's range of knowledge. Roll vs. Expert Skill (Bardic Lore) instead of Research to recall a relevant piece of information. You can add any knowledge you've successfully versified (p. 16) to this skill's scope.

ALTERNATIVE SKILLS FOR TEACHERS

In addition to skills that *aid* teaching, there are some that partially take its place.

Expressive and Communicative Skills

Several skills can be used to create an instructional work in some medium (*Medium of Instruction*, p. 18):

Artist (various specialties) is used to prepare instructional posters, exhibits, or other visual materials. A new specialty, *Artist (Virtual Arts),* is used to create virtual environments (p. 30). This specialty and *Artist (Illusion)* default to each other at -4, and a teacher with the ability to create illusions can compose instructional illusions.

Poetry is used to create the kind of verses that make up Expert Skill (Bardic Lore) (above). The Versification technique (p. 16) can enhance its benefits.

Public Speaking is used to prepare and deliver an informative speech or lecture.

Writing is used to compose a text that conveys information. It can also complement Public Speaking.

Modifiers: Equipment Modifiers (p. B345), if applicable; *Time Spent* (p. B346); a complementary skill roll (p. 16) against Research; any complementary skill rolls made by creative assistants.

Margin of success or failure determines the work's quality, and hence the modifier it gives to Teaching or monthly study rolls:

Failure by 4+: Nothing usable!
Failure by 1-3: Crude improvisation (-2).
Success by 0-11: Competent work (no modifier).
Success by 12-17: Good-quality work (+1).
Success by 18-23: Fine-quality work (+2).
Success by 24+: Best possible work (+TL/2, rounded down, minimum +2; +4 for a work based on abilities such as Illusion).

Propaganda

As with Brainwashing (above), Propaganda is used to transmit ideas or forms of behavior to people who aren't seeking to learn them and may be actively resisting them. Resistance calls for a Quick Contest of Propaganda vs. average Will in the target population. However, propaganda has no "teacher"; the material is disseminated to its audience in the hope of getting them to respond. Effects on behavior rarely rise above quirk level. An expressive or communicative skill can complement Propaganda rolls.

Gesture

Gesture (including its IQ-4 default) allows teaching without a common language, albeit at a penalty, for skills that have a practical aspect. See *Medium of Instruction* (p. 18).

Influence Skills

Influence skills (p. B359) can motivate reluctant students to make the effort to study or to behave better. See *In the Classroom* (p. 26).

"You're in for a shock, son. We don't have classrooms and fixed courses. Except for laboratory work and group drills, you study alone. It's pleasant to sit in a class daydreaming while the teacher questions somebody else, but we haven't got time for that. There is too much ground to cover. Take the outer languages alone – have you ever studied under hypnosis?"

– Robert Heinlein, **Space Cadet**

TECHNIQUES FOR TEACHERS

A couple of techniques enable more effective teaching.

Exercises

Average

Default: Teaching.
Prerequisites: Teaching and a combat or athletic skill; cannot exceed Teaching+3.

Creates a series of movements – such as a drill or a kata – suited for practicing the basics of a skill. Useful for the first two points in a skill, but not for higher levels. In addition to improving Teaching skill for the purpose of instructing a class or preparing instructional materials, each point in the technique gives +1 to students' monthly study rolls (p. 5).

At the GM's option, Exercises may be applied to performing-arts skills, intellectual skills, or even some social skills such as Savoir-Faire (High Society, Military, or Servant).

Legendary Teaching

Hard

Default: Teaching-5.
Prerequisites: Teaching and a relevant special advantage.

You're one of those rare teachers who train true heroes in their skills, as the centaur Chiron trained Achilles, Heracles, and Theseus. Whether through inspiration, divine wisdom,

or advanced scientific methods, you can pass on knowledge extraordinarily quickly, teach cinematic skills and techniques, and even impart mastery comparable to your own. Legendary Teaching is the basis of *Heroic Learning* (pp. 19-20); the rules for it appear there.

The archetypal "relevant special advantage" for this technique is Trained by a Master, but similar combat-related advantages (Gunslinger, Heroic Archer, Weapon Master, etc.) are no less fitting. Other spheres call for different advantages: Charisma 3+ for Influence and social skills; Gadgeteer for technological skills; Harmony with the Tao (**GURPS Thaumatology: Chinese Elemental Powers,** p. 15) for peaceful cinematic skills; Magery 3+ for spells and magical skills; and three levels of a power Talent for powers. At the GM's discretion, three levels of a *skill*-related Talent may grant access to this technique, as an alternative benefit that replaces the reaction bonus (see **GURPS Power-Ups 3: Talents,** pp. 18-19). Enlightened Teacher (p. 20) lets you teach *any skill you know* in this way!

SPELLS FOR TEACHERS

Several spells from **GURPS Magic** can aid the teaching process. Due to their limited duration, they may grant only +1 where comparable advantages would give +2 – but an instructor who can maintain such a spell throughout an entire lesson receives the full +2.

Lend Skill can grant a student the chance to use certain new skills, or existing skills at a higher level; skills that involve reflex action or body conditioning (*Body Training,* p. 12) are at -1. Using loaned skills under stress can enable points-based learning. If maintained for an extended period, this spell opens up a wider range of skills, and time spent using them can be counted as hours of on-the-job learning. Similarly, *Lend Language* can allow language acquisition if maintained; count this as sustained exposure to the language, up to four hours a day.

Lesser Geas or *Great Geas* can commit the subject fully to completing a course – or, for Great Geas, to studying a skill for the rest of his life! Treat him as Single-Minded (p. 14) while the spell endures. The student need not be willing; such magic is a suitable tool for coercive teaching (p. 20). *Oath* has a similar effect, but the subject must consent.

Memorize isn't suited to serious study, as the memories gained are likely to fade; reputable teachers won't use it. However, it can be used for cramming: +10 to rolls to pass an examination in any knowledge skill! *Recall* can do the same, if the student has bothered to look at the material, but casting it is often a bit obvious . . .

Mind-Sending or *Telepathy* gives +1 to Teaching for working with one student. Ongoing use gives +1 to monthly Teaching rolls.

Sense Emotion is not maintained, but cast instantaneously to find out if a student is confused; it gives +3 for tutoring a single pupil. *Mind-Reading* similarly gives +4.

Simple Illusion, Complex Illusion, or *Perfect Illusion* gives +1 to Teaching rolls the illusion can help to illustrate. Ongoing use gives +1 to monthly Teaching rolls.

Wisdom, maintained for the duration of a lesson, grants bonuses to Teaching and to any IQ-based skills being taught.

Chapter Three
ORGANIZATIONS

All teaching and many forms of learning take place within relationships. Often these relationships are embedded in larger organizations or institutions. The social aspects of learning and teaching can affect their success.

Bright college days, O carefree days that fly . . .
– Tom Lehrer, "Bright College Days"

STUDENTS AND TEACHERS

Direct interaction between students and teachers can be represented using game mechanics from **GURPS Social Engineering.**

SEARCH

Finding a teacher often means searching a community for a school, which could be anything from an individual working out of a private dwelling to a large residential university. To perform such a search, roll vs. IQ or Area Knowledge, modified as discussed below. The GM may allow other skills. Success means that you located an appropriate school; failure, that you didn't.

If the GM has decided that a suitable school exists and that prospective students just need to locate it, then it's important to decide how large the school is, because larger schools are easier to find; apply the relevant modifier from the *Organizational Size Table* (below). On the other hand, as a smaller community can be searched more quickly and a school of any size will stand out more, the search modifiers for city size (p. B517) are *reversed:* from +3 for less than 100 inhabitants to -3 for 100,000 or more. If the school is actively seeking students, rolls to find it are at +5; more exclusive schools require an unmodified roll; and secretive masters of magic, exotic martial arts, and other arcane subjects give -5.

The GM who prefers to let the search roll itself decide whether a suitable school is present must decide on the *typical size* of the kind of school being sought – but because larger organizations are less common, the modifiers from the *Organizational Size Table* are now reversed. On the other hand, the city-size modifiers are *not* reversed, as bigger cities are more likely to have organizations of any given size. Modifiers for schools that are actively recruiting or unusually secretive still apply. Failures allow repeated attempts at a cumulative -2 (new schools don't start up every day), but if accumulated penalties ever reduce the required roll to 2 or less, there's no school to be found. The GM may simply decide that no such school is present; e.g., a village of 100-999 people can't have a school with more than 1,000 staff!

It's also possible to seek a *single instructor* as a hireling (pp. B517-518).

A teacher can search for students, too! This is effectively *Finding a Job* (p. B518). You can look for multiple students; if so, each week's search finds a number of students equal to one more than the margin of success. Alternatively, you can seek out schools that are hiring, applying the organizational size modifiers as explained above.

Organizational Size Table

Size	Modifier	Size	Modifier
One-person operation	-1	21-100 staff	+2
		101-1,000 staff	+3
2-5 staff	0	More than 1,000 staff	+4
6-20 staff	+1		

NEGOTIATION

If a prospective student finds a teacher through a search roll, it's typically fair to assume that the teacher *wants* more students. Treat this as a "Neutral" or "Good" reaction rather than making a reaction roll or asking for an Influence roll – "Neutral" is plausible for unskilled students, "Good" for those who already have some skill. In the same way, a teacher's successful search roll can be assumed to find willing students or a school that's hiring.

Reaction rolls or Influence rolls come in when the instructor or school is more exclusive, or with someone who needs to be talked into teaching or being taught. On the *Reaction Table* (pp. B560-561), use the results for "requests for aid" for a would-be student and those for hiring (see **GURPS Social Engineering,** p. 75) for a would-be instructor, even one who offers his services without charge. A "Good" reaction, or a successful Influence roll, is usually sufficient; for potential teachers who require more, see *Loyalty* (p. 26). Diplomacy is always a suitable Influence skill; Savoir-Faire or Streetwise may be appropriate.

This sort of situation will most often be played from the viewpoint of the person seeking the relationship, but that isn't a requirement. It can be dramatically interesting for a PC to be asked to train someone or invited to undergo training. In those situations, the player gets to decide his reaction.

If the would-be student or teacher uses an Influence skill, and the PC resists, see *Influencing the PCs* (p. B359) or the longer discussion on p. 32 of **GURPS Social Engineering.**

Example: Takahashi-sensei offers lessons in Broadsword and Fast-Draw (Sword) to a promising student. Taeko's player doesn't want her tied down to a fixed location, and refuses – but Taeko loses the Quick Contest by 4! She goes away wondering whether her kenjutsu has some weakness she has failed to perceive. Her lingering doubts give her -4 to skill as a result of unconscious hesitation when wielding her katana.

LOYALTY

Being a student or a teacher is a continuing relationship. If the GM wants to dramatize this, it's important to determine a loyalty score for the other person involved. This normally calls for a reaction roll (see pp. B560-561 or the expanded treatment in **GURPS Social Engineering**). An Influence roll can be substituted; victory sets loyalty at 14 ("Good"), while loss sets it at 5 ("Bad"). If the relationship is merely a background element – a job for a teacher, or a source of new abilities for a student, and nothing more – the GM may assume loyalty 11 ("Neutral") and not bother to roll.

For coercive relationships, loyalty rolls are modified – often for the worse (see pp. B518-519). If a background relationship is coercive, the GM may assume a loyalty of 8 ("Poor"). Not all involuntary relationships are subject to this; compulsory schooling in a culture that values education is usually accepted as just part of life, and produces a "Neutral" reaction.

Some teachers will only accept students who have earned their personal trust; this is a common theme in martial-arts films, for example. Establishing such a relationship should be roleplayed. It's also possible to roleplay the situation of a teacher who must earn a special student's trust. This amounts to "Very Good" or "Excellent" loyalty (16+), and can't be won through ordinary Influence rolls.

Many prospective students or instructors will rely on reaction rolls. A relationship may be offered at monthly intervals, starting one month after first meeting; a roll after less than a month is at -2. Any Diplomacy skill gives +1; skill 20+ gives +2. Standard modifiers for personal appearance and behavior, reputation, and biases apply. Exceptional unsuitability or suitability might give from -4 to +4; in particular, Talent for a skill should give reaction bonuses! Students aspiring to lessons from an extraordinary teacher (see *Initiation*, p. 8) may treat unspent points as a bonus to this roll, reflecting the master's recognition of the aspirant's potential. A modified roll of 16+ ("Very Good" or "Excellent") establishes the relationship and is used thereafter as a loyalty score.

An Influence skill can be used instead – but not in an Influence roll. Treat this as a Regular Contest of the Influence skill against the other person's Will; the modifiers for the reaction roll also apply, though not the bonus for Diplomacy (Diplomacy may be used as the Influence skill, however). If the skill roll succeeds and the Will roll fails, the relationship is accepted, with initial loyalty 1d+15. If both succeed or both fail, the offer is declined but may be attempted again later. If the skill roll fails and the Will roll succeeds, the offer is declined *with prejudice:* all later attempts are at -5. It may be necessary to modify extreme skill and Will scores to avoid interminable series of dice rolls (*Extreme Scores,* p. B349).

In the Classroom

A simple approach to the social facet of teaching is to roll loyalty for the entire class. The result determines a modifier for effective Teaching skill: no modifier for "Neutral," +1 per step higher, or -2 per step lower. "Poor" loyalty indicates occasional distractions, interruptions, or heckling; "Bad" or "Very Bad" means the instructor may be ignored or shouted down. "Disastrous" loyalty makes teaching impossible and may require a "potential combat" roll. When portraying teaching simply as an income source, the GM may assume "Neutral" loyalty without rolling.

A teacher can attempt to improve a class's attitude with a Leadership roll. Success gives +2 to current loyalty. Failure has no effect.

Teachers may wish to *cultivate a persona*. This isn't pretending to be someone else, but acting as your own "better self." It requires a monthly Quick Contest of Acting+5 or Teaching+3 against the highest IQ in the class; a teacher with Honest Face rolls at +1. Winning gives +1 to reaction rolls, Influence rolls, Leadership rolls, and effective loyalty for that month; losing gives -1 (your students can see you're playing a part). Optionally, to save time, the GM may instead allow a complementary skill roll (p. 16) against Acting or Teaching-2.

If the campaign focuses on the students, the same loyalty roll for the *rest* of the class can establish how favorable the environment is for study. Also determine the instructor's feelings toward the PCs. This won't directly affect the quality of instruction but may indicate that the teacher is willing to consult with students, provide extra help, encourage self-study for extra credit, or act as a mentor – or that he's actively hostile and seeks to cut them down! Students showing extra dedication to their studies get +2 to this roll. Again, the GM may simply assume "Neutral" loyalty: a professional doing his job.

If loyalty has been determined for individual students, a teacher may attempt an Influence roll to persuade less loyal students to behave better or work harder. Fast-Talk works for only a single session or incident; most other Influence skills can be used once a month. Winning the Quick Contest gets a student to stop behaving disruptively, or persuades an unwilling or lazy pupil to make the effort to learn (*Coercive Teaching,* p. 20). Sex Appeal can inspire extra effort (+2 to Will for monthly study rolls) – but that's also a good way to get in trouble!

*"Oh, **I see.** You wish to face me in the dojo? For it's a very old truth: when the pupil can beat the master, there is nothing the master cannot tell him, because the apprenticeship is ended. You want to learn?"*

*– Terry Pratchett, **Thief of Time***

ACADEMIC ORGANIZATIONS

A lot of instruction is carried on by organizations. Nearly all organizations have to provide *some* form of training to new members; many teach actual skills. In some cases training is dispersed throughout the entire organization, the role of which is limited to setting standards; many forms of apprenticeship work this way. In others, an organization maintains a separate internal branch for training – a school. Schools can also function as freestanding organizations whose *purpose* is to offer instruction.

Either type of school can be as small as a one-person operation. Such a teacher will often be described by a character sheet. But it may be useful to describe the school as an organization as well or instead.

Teaching as a one-person organization is a freelance job. Teaching in a larger organization is often a regular job, with a set monthly pay rate. See *Job Rolls* (p. 19).

STATISTICS

Schools can be described as organizations in the style of **GURPS Boardroom and Curia.** The following guidelines apply:

Members: The members of most schools are their instructors and staff. Students can count, too, if they teach as well as study, if their work earns income for the school, or if they elect or control the school administration. Simply paying the school for instruction doesn't suffice, however. Usually, students are better described as clients or customers.

Contacts: A school can be treated as a Contact for Teaching and as a Contact Group for subjects it teaches, if these are defined as skills; elementary schools usually provide only Teaching. Skill levels in the areas of instruction may be 12-18 if education is the organization's only major function, but can range up to 21 for a research institute, major temple or monastery, or similar institution.

Patron Value: Many schools have resources worth less than 1,000× starting wealth for their TL (Patron Value 10 points) – perhaps as low as 2× starting wealth for a single eccentric with a handful of students. Such smaller organizations can be assigned lower Patron Values as discussed on p. 41 of **GURPS Social Engineering:** 5 points for at least 100× starting wealth, 3 points for at least 20×, 2 points for at least 5×, or 1 point for at least 2× (the suggested minimum for any school with actual facilities). Larger schools are certainly possible, but running them is much like being a politician or a corporate manager; the people in charge will have almost no contact with the teachers, let alone the students, and little time to spend on adventuring or personal interests.

Type: A school is by definition a Teaching organization. Schools are commonly Commercial, Government, or Religious as well; those that provide advanced instruction may also be Research organizations. Schools of interest to adventurers are often Military in character (associated with *Drill*, p. 32) or Trade associations such as guilds (associated with *Apprenticeship*, p. 31).

Rank: Discussed under *Rank and Assistance* (below).

RANK AND ASSISTANCE

Rank in schools follows the rules in **GURPS Social Engineering** (notably *Variant Costs of Rank* on pp. 14-15 of that work) and **GURPS Boardroom and Curia.** It usually costs less than 5 points/level and doesn't normally raise Status in society at large. Rank in a university faculty might be assessed as follows: nominal hierarchical position with title [1/level] + chain of command [1/level] + typical resources [1/level] + not dominant or unique [-1/level] = 2 points/level. A society in which scholars are deeply respected as servants of the state, the community, or humanity might add legitimacy [2/level], making cost 4 points/level. This form of Rank *would* also grant Status based on point cost: no bonus for 0-9 points (Rank 0-2), +1 for 10-24 points (Rank 3-6), and +2 for 25-39 points (Rank 7-8). In practice, schools rarely have more than four or five levels of Rank.

Rank within a school grants the ability to make requests for aid through an assistance roll (AR) based on the teacher's Rank and the level of Patron the school is equivalent to (see *Statistics,* above). **GURPS Social Engineering: Pulling Rank** offers detailed rules for this. Many schools are too small to count even as 10-point Patrons, however; costs of one, two, three, or five points are common.

THE PRICE OF INSTRUCTION

The cost of formal education depends on the pay scale for the TL and on the quality of the instruction. A simple measure of quality is a school's value as a Contact for Teaching. This reflects not only its teachers' inherent skill but also class size (*Teaching Skill and Class Size,* pp. 17-18), the complementary skills (p. 16) of the school staff, and the quality of the facilities (pp. 28-29). Multiply typical monthly pay for Average wealth by the corresponding percentage on the table below; the result is the price of one character point's worth of teaching.

In a campaign where Teaching rolls are made – either for single lessons or as monthly job rolls – use the indicated Teaching skill. If instruction is treated simply as a purchasable commodity, assume that an effective skill of 15, 18, or 21 gives students a bonus: +10%, +20%, or +40% to hours of learning gained, *or* +1, +2, or +4 to monthly study rolls.

Contact Skill	Percentage	Examples
Teaching-12	5%	One-room school, on-the-job training
Teaching-15	10%	Typical school, small college, trade school
Teaching-18	25%	Good private school, university, professional school
Teaching-21	100%	Elite university, advanced institute

Assistance Rolls Table for Small Organizations

Equivalent Patron	Rank								
	0	1	2	3	4	5	6	7	8
Rank [2/level]									
1 point	9	10	11	12	13	14	15	16	17
2-3 points	7	9	10	11	12	13	14	15	16
5 points	5	7	9	10	11	12	13	14	15
Rank [3/level]									
1-2 points	9	10	11	12	13	14	15	16	17
3-5 points	7	9	10	11	12	13	14	15	16
Rank [4-5/level]									
1-3 points	9	10	11	12	13	14	15	16	17
5 points	7	9	10	11	12	13	14	15	16

The *Assistance Rolls Table for Small Organizations* (above) provides suitable base AR values. Modify these as usual for requests from organization members.

Schools may also provide resources to their *students*. Some are routinely available to any student taking an appropriate course. Others require permission, obtained either by going through channels (handle this as an Administration roll, at +5 for routine requests, or unmodified for unusual ones), or by making a personal request of a teacher or other staff member (represented as a reaction roll or Influence roll). In some cases, the person approached may then have to pull Rank to get the organization's cooperation. Students themselves usually aren't members of the organization and have no Rank to pull.

RESOURCES

A teaching organization can provide a variety of resources. The most common of these appear below, but this list isn't exhaustive. For further options – and more general definitions of the ones discussed here – see *GURPS Social Engineering: Pulling Rank.*

Some resources are available in a freestanding form, unaffiliated with any teaching organization. Examples are gyms and libraries. Students who need these for self-study can find them with appropriate search rolls.

Equipment

Schools can often provide equipment for learning or practicing skills: laboratory apparatus, musical instruments, tools, weapons, and the like. This is usually basic-quality gear that allows skill use at no penalty or bonus. Its price varies; see *GURPS Low-Tech, GURPS High-Tech,* and *GURPS Ultra-Tech* for suggestions.

A school might be able to supply superior equipment that gives a bonus equal to 1/5 of the organization's base point value as a Patron. This gear is good-quality (+1 to Teaching rolls and to rolls to use the skill being taught) for a Patron worth 5 points, fine-quality (+2) for a Patron worth 10 points. These bonuses apply only if the school also provides *at least*

standard facilities (see below). An institution that can furnish the best possible equipment at its TL (giving +TL/2, with a minimum of +2) must be bought as an *actual* Patron with Special Abilities, +50%.

A Scrounging roll can obtain improvised equipment at low or negligible cost. For technological skills, this gives -5 to Teaching rolls or reduces learning time by 25% for self-study. For other skills, the penalty is -2 and the reduction is 10%.

For teachers' access to equipment, see *Technical Means* (p. 31).

Facilities

Schools maintain many sorts of facilities for training and teaching: laboratories for the sciences, workshops for practical skills, studios for the arts, gymnasia or playing grounds for sports, obstacle courses or target ranges for military skills, and so on. At a minimum, these offer conveniently laid-out spaces where activities won't be a nuisance or a danger to others; they often contain suitable equipment as well. Facilities are usually an attribute of a school as an organization, even if it has only one instructor. However, facilities are also available for certain types of self-study. The GM may rule that some activities don't require facilities; e.g., Survival can be learned in the wilderness.

Facilities come in several grades:

No Facilities: Teaching or practice takes place in a cleared field, a vacant lot, or an unoccupied building. Equipment is limited to what students bring with them. Many skills *can't* be taught or practiced under these conditions. For those that can be, Teaching rolls are at -5. Multiply hours of learning from self-study by ×0.75.

Temporary or Improvised Facilities: Teaching or practice takes place in a room that has been adapted to the purpose; in a school that occupies a house or a general-purpose office building; or in a space that allows temporary access, such as a public meeting hall, library, or gym. Sophisticated technological equipment isn't an option, and IQ-based technological skills are taught at -5; other skills are taught at -2.

Such conditions are normal for self-study, which takes place at full speed. For formal instruction, multiply hours of learning by ×0.75 for IQ-based technological skills; training at other skills is unaffected.

Standard Facilities: The space is configured for instruction or practice: a classroom has a lectern and seats, a chemistry lab has benches, sinks, and gas lines, a music studio is sound-proofed. Ordinary equipment – e.g., mats and targets for martial arts, or projection gear for TL7+ classrooms – can be permanently installed. Storage space is provided. These facilities give no modifier to Teaching rolls; if a facility this good is available for self-study, multiply hours of learning gained by ×1.25.

Superior Facilities: The school as an organization can afford sophisticated equipment, granting bonuses. To find the highest possible bonus, divide the school's base point value as a Patron (*Statistics,* p. 27) by five and round down; e.g., +1 for a school with 100× starting wealth or +5 for one with 1,000,000× starting wealth. Tech level limits these benefits: +1 or +2 is available at any TL, but higher bonuses cannot exceed +TL/2, rounded down. Apply this modifier to Teaching rolls; if a school provides high-end facilities for self-study, apply it to monthly study rolls *in addition to* multiplying hours by ×1.25 for standard facilities.

Funding

A research organization may grant funds to teachers to support their projects. The school's base point value as a Patron determines available funding as a multiple of campaign starting wealth:

Equivalent Patron	Funding
1 point	0.02×
2 points	0.05×
3 points	0.2×
5 points	1×
10 points	10×

For larger schools, see **GURPS Social Engineering: Pulling Rank,** p. 16. The assistance roll is unmodified if the proposal was solicited but at -1 to -10 otherwise.

Many schools have funds available for the benefit of needy or talented students. Obtaining a one-time grant, prize, or scholarship requires an Administration roll; if the applicant has a relevant Talent, its reaction bonus applies. The amount awarded is 1/10 of what a teacher would receive for a project. Full scholarships depend on the customs of the school and society; if offered, they require an Administration roll to obtain.

Some schools provide jobs for their students or help them find employment in the surrounding community. Treat this as a job search, but with a bonus equal to *half* the institution's base point value as a Patron.

Information

At its most basic, teaching conveys the information stored in the *teacher's* brain, as communicated by speech, gestures, and demonstrations. As technology advances, new information-storage media become available. These can be used as resources for formal instruction and often for self-study.

Teachers can solicit information from other teachers with an assistance roll; on a success, treat these colleagues as a "Somewhat Reliable" Contact with effective skill 15 + (base point value as a Patron)/5, rounded down. Students may approach teachers they know, ask such people to attempt ARs on their behalf, or seek suitable informants with a search roll (p. 25). For access to documents, see *Searchable Archives* (p. 30).

● In a culture with *no* external media, knowledge skills and IQ-based technological skills (if any exist!) can be learned only from a teacher, whose rolls are at -2. Practical skills and non-IQ-based technological skills can be taught at no penalty; a successful Observation (p. 16) roll allows self-study by watching others use the skill. After the first point of such a skill is gained, self-study through practice can add more points.

● If the teacher has Eidetic Memory, or if enhanced-memory techniques are available (*Techniques for Learners,* p. 16), knowledge skills and IQ-based technological skills can be taught at no penalty. In a culture that relies on Versification (p. 16), the main knowledge skill will be Expert Skill (Bardic Lore) (p. 23).

● *Written texts* can be used in two ways. If they're hand-copied (TL1-3), and thus scarce, a lecturer can read from a text while students copy it down or memorize it, adding explanations to help them understand it. The Teaching roll is at no penalty; if it fails, students can use their notes for self-study. If the texts are printed (TL4-9) or available online (TL8-12), students can own copies. The instructor's job is to explain the material and a failed Teaching roll gives no benefit, though students can still engage in self-study. Rich students who can afford hand-copied texts, or *any* student at TL4+, can gain knowledge skills through self-study; text alone isn't sufficient for practical skills.

● *Pictures* by themselves reduce the penalty for teaching IQ-based technological skills to -1; they aren't sufficient for self-study. *Illustrated texts* allow self-study of simple craft skills and of technological skills.

● At TL6, *audio recordings* of lectures can take the place of texts for self-study.

● At TL7, *video recordings* of lectures and demonstrations can be used for self-study of most skills.

PRIVATE FACILITIES

A really rich person might invest in high-end training facilities for personal use. Determine quality in the same way as for a school's facilities: find the base point value of a Patron with assets corresponding to the student's Wealth, and divide by five. For example, a Filthy Rich adventurer (100× starting wealth) could afford training facilities that give +1.

Comfortable, Wealthy, or Very Wealthy individuals are equivalent to one-, two-, and three-point Patrons – too low for their facilities to grant bonuses. At the GM's discretion, though, *anyone* with at least Comfortable wealth may be able to remodel and equip a room as standard facilities for self-study.

The cash value of facilities need not be accounted for separately. It's included in cost of living for the Status level associated with a given Wealth level.

● At TL9, *chip slots* (a form of Modular Abilities, p. B71) may provide the ability to interface the brain directly with externally stored knowledge and abilities, making it possible to use skills without having learned them. Skills that involve reflex action or body conditioning (*Body Training,* p. 12) are at -1. Using a chip-provided skill can count as learning on the job (p. 4); with GM approval, using it under stress can allow points-based learning (pp. 5-7).

RETREATS AND WORKSHOPS

Many organizations find it convenient to conduct training in short sessions that don't break up the flow of work too badly. This kind of brief instruction doesn't provide enough hours for even one point's worth of learning, however.

One way to approach this is to define each short course as providing hours *toward* a particular skill or other trait. A weekend retreat counts as 20 hours; a week of study counts as 40 hours if full-time or 20 hours if half-time. When accumulated hours in a subject reach 200, add a point.

Workshops can also justify acquiring a new familiarity (p. 10). For example, a chef might attend a workshop on stir-frying or *sous-vide* cooking methods. A single workshop is sufficient for this.

As well, week-long workshops can provide a timeframe for *Study Rolls for Intensive Training* (p. 5).

Going on a retreat can provide a framework for points-based learning (pp. 5-7), too. If some new capability isn't freely available – e.g., a perk or a technique outside a martial artist's style – attending a workshop might allow spending one earned point on "breakthrough learning." Alternatively, the GM may require this for *all* points-based learning, as a variant on slower character improvement (*Points as an Accelerator,* p. 7): adventurers with points to spend must take time between adventures to study and reflect on their experiences. If the GM makes *Heroic Learning* (pp. 19-20) available, this can grant multiple points.

Yet another option for points-based learning is the *learning ordeal.* This requires a full 20 hours of uninterrupted study. Keep track of the student's sleep cycle (Less Sleep or Doesn't Sleep is helpful!) and FP lost to sleep deprivation. Every four hours, roll vs. Will or Autohypnosis at a penalty equal to missing FP; Attentive grants +1, while Single-Minded gives +3. Success at *all* rolls allows "breakthrough learning" after a single day. Any failure means the time has been wasted. The student is allowed short breaks, including pauses for simple meals, but cannot pursue any other activity.

Virtual Environments

Virtual reality is a family of technologies available at TL9+ that provide simulated visual and auditory – and sometimes full-sensory – experiences.

● *Desktop displays* based on sensor gloves and a head-up display create a small simulated workspace. They give +1 to Teaching rolls, or allow self-study without equipment, for knowledge skills and skills based on manual dexterity.

● *Full-surround displays,* using whole-body motion capture and image-projecting glasses or contact lenses, provide the above benefits for *all* practical skills, and allow self-study of combat skills without a partner.

● *Immersive VR* requires a neural interface and provides simulated experiences via all the senses. This gives +2 to Teaching rolls, much like *Illusion* (p. 21) and Illusion spells (*Spells for Teachers,* p. 24). *Sensies* offer the same benefits but are recorded from an actual person's sensory experiences.

● At TL10+, *dream teaching* combines immersive VR with artificially induced receptive brain states to make self-study equivalent to intensive training for IQ-based skills. DX- and HT-based skills can be studied for up to 16 hours/day at rates equivalent to normal teaching (double the self-study rate).

Searchable Archives

Recorded information and virtual environments can be collected and made available, either as part of a school's facilities or in independent libraries. Using a searchable archive typically requires a Research roll. Base time for a search is 1d hours.

For academic libraries (those housed in universities), rolls to find academic and research materials are unmodified. For a general public library, roll at -2 in cities of 500,000 or more, plus an additional -2 for each tenfold decrease in population; for a special-purpose library, roll at +1 for the specialty but -2 for other subjects. Truly exceptional libraries grant quality bonuses: +1 for large university, government, or corporate archives; +2 for famous libraries like the Bodleian or the New York Public Library; +3 for the Library of Congress; or +4 for top-secret archives such as NSA files.

Seeking a general textbook for a subject gives +5 to Research (allowing a straight IQ roll for default users); if you're taking a course from an instructor, no roll is required. Hunting down material for study of a subject for which no textbook has been written requires a Research roll; if the subject is obscure (e.g., Hidden Lore), this is at -5. Advanced courses often assign such research to students. Roll vs. the instructor's Teaching as a complementary skill (p. 16).

How the library is organized makes a difference! A pile of random documents gives -10 to Research; an organized archive without a catalog, -5. At TL1-4, catalogs aren't standardized; using an unfamiliar one is at -2 for the first eight hours. Standardized catalogs give no modifier. Spending extra time on a search (p. B346) can compensate for poor organization.

Searchable online catalogs are much faster to use – base search time is 20 minutes. This also applies to catalogs of online instructional materials, which need not be associated with any specific school or library.

Students and teachers can gain access to a school library automatically; outsiders need an Administration roll (or a Contact in the library!). Special collections require an Administration roll from students; restricted materials call for an Administration-5 roll or the help of a teacher or a librarian. Teachers can obtain access to special collections in their fields automatically; restricted materials demand an assistance roll. Such materials are usually off-limits to the public!

Introductions

Most schools can provide introductions that get teachers or staff past organizational gatekeepers. Assistance rolls are at +5 for introductions to other members of the same institution, or unmodified for affiliated schools. Students don't normally get such introductions, and can't do so with an Administration roll; a personal appeal to a teacher or a staff member is needed.

Licenses

Professional schools, trade schools, and even driving schools teach the skills required to qualify for various licenses. Admission to a specialized school automatically grants such training; a program within a larger institution may require an Administration roll. Organizations such as medieval guilds granted licenses – including the *ius ubique docendi* (license to teach) of medieval universities – and tested qualifications for them: a craftsman created a "masterpiece," while a scholar engaged in a formal debate. Such tests make good dramatic scenes! Permission to take the examination requires an Administration+5 roll at the standard point in training, or an Administration roll in unusual circumstances.

Technical Means

Teachers with Academic Rank can seek access to scientific equipment appropriate to a school's TL, from distillation apparatus to telescopes to computer time. Most assistance rolls for such equipment are unmodified. A typical project may need from a day to a week to arrange such support.

INSTRUCTIONAL METHODS

Within organizations, teaching can be carried out in many different ways. Where applicable, pay rates for these forms of instruction are given as multipliers to typical monthly pay for the TL (p. B517).

. . . not all mages learn their skills at the university; wizards and witches trained in older traditions roam the land.

– GURPS Locations: Worminghall

APPRENTICESHIP

Informal variants of apprenticeship are probably as old as humanity. Formally organized ones go back to the first city-states, and the medieval version is well known. Versions of apprenticeship continue to this day, though sometimes under other names; e.g., "internship."

The apprentice enters a workplace, where he performs duties under the supervision of an experienced worker. Much of his day may be spent in simple, repetitive tasks or in housekeeping; however, he also benefits from the master's instruction and from observing his work, and over time takes up more challenging duties. Training is normally focused on one main work skill, though many apprentices also pick up a point or two in such skills as Housekeeping, Lifting, or Savoir-Faire (Servant). Treat this process as on-the-job learning.

Masters often aren't directly paid for their teaching; rather, they benefit from the apprentice's work. Fees for taking on an apprentice are fairly common, however. Guild organizations may set standards for apprenticeship agreements and conduct examinations of professional skill, but they don't employ teachers or sell instructional services.

TUTORING

Tutoring may well have begun as a luxury for high-Status households; in the ancient world, such a household might *buy* an educated slave to instruct its children. In market economies, parents may send their children to private lessons, or adults might take them in subjects of personal interest.

A tutor most often works with one or two students, and seldom as many as five, which gives large bonuses to Teaching skill (*Teaching Skill and Class Size,* pp. 17-18). Students meet with the tutor for an hour or two of instruction, and then do multiple hours of assigned work; e.g., reading, writing, essays, solving math problems, or practicing music. The entire process normally counts as formal instruction; some forms, such as the Oxford tutorial system, are comparable to intensive training.

Giving private lessons amounts to a freelance teaching job, often part-time; the monthly pay multiplier is commonly ×1/2, though for full-time tutors it may be ×1. Tutors living in high-Status households receive a fixed wage with the same multiplier. Tutors at universities may be either salaried or freelance, but their multiplier is ×2.

CLASSROOM STUDY

Classroom study seems to have been invented in early city-states during the Bronze Age, originally to teach the children of scribes to read, write, and calculate. It remains in use today in a largely similar form.

In this type of study, a teacher works with multiple students, from a dozen to more than 30. In early classrooms, when books were scarce and expensive, teachers recited information to students – from memory or from a text – and students copied or memorized it and recited it back. When the invention of printing made books more available, teachers could have students read their own books and spend class time explaining the subject, demonstrating how to do things, and answering questions – though the older methods remain in use for younger students whose reading ability isn't fully developed. In either case, treat classroom study as formal instruction.

Teaching is usually a regular job with a salary. The monthly pay multiplier is ×1 for elementary and secondary teachers, ×2 for college and university teachers; senior faculty earn more.

DRILL

Drill has been associated with armies since ancient times; there are records of its use in the Roman legions, for example. But it has a variety of nonmilitary uses.

Drill begins with a verbal statement of the actions to be performed, followed by a slow-motion demonstration, which the students imitate. After several more cycles at increasing speed, the students practice on their own – or in pairs, for hand-to-hand combat skills – while the instructor observes and corrects their technique. This method is suited to many techniques and to adding new familiarities (for example, with weapons, musical instruments, or dances); it can provide the first point of many skills, especially combat skills, and can impart elements of other skills such as Crewman and Soldier. Comparable methods may suit learning spells (*Spells,* p. 9). Drill often counts as formal instruction, but many forms of intensive training make use of it.

Conducting drills is usually a salaried job; a typical monthly pay multiplier is ×2. In conscript armies, multipliers may be lower.

LEARNING ENVIRONMENTS

The basis of ancient Greek education, especially in Athens, was the concept of *paideia:* The idea that living in the city in itself was an education. Communities of other sorts can have the same effect. For example, the Rule of St. Benedict provided medieval Christians with a system of education and a way of life that combined prayer, study, and work.

A learning environment provides interaction with older, more experienced people who may act as role models, tutors, or practice partners; this may include experiences such as the Athenian *symposia*, dinner parties where good speaking was expected. It invites participation in activities such as art, music, or sports. It also calls for engagement in the life of the community and awareness of its traditions. This results in acquisition of skills such as Public Speaking, Religious Ritual, and some Connoisseur and Savoir-Faire specialties, and perhaps of a language such as Latin; it may also add or remove disadvantages (see *Disadvantages,* p. 12). Treat the process as on-the-job learning, with the "job" taking eight hours a day or 240 hours a month. It can be combined with private lessons in specific skills.

A learning environment doesn't have "teachers" in the usual sense, and those who teach don't do it as a job, so pay multipliers aren't an issue.

ONLINE COURSES

At TL8, it becomes possible to access educational materials – texts, spoken lectures, videos, programmed courses, and so on – over the Internet. The student downloads the material, or accesses it on a remote site, and works through it. Some online courses also provide interaction with a teacher (recorded messages or live chat) via text, voice, or video. Treat an interactive course as formal instruction, a non-interactive one as self-study. See *Technological Channels* (pp. 18-19) for further rules.

Providing human assistance is typically a salaried job with a monthly pay multiplier of ×1.

RELATIONSHIPS

No educational institution exists in a social vacuum. Schools have relationships with other organizations and communities. Spelling these out can illuminate the activities and culture of the school itself.

There is danger and education
In living out such a reckless life style.

– Joni Mitchell,
"Don Juan's Reckless Daughter"

WHO OWNS THE SCHOOL?

Like any organization, a school is created by someone – either individuals or another organization – and its activities are meant to serve its founders' purposes. In some cases, the creators act as Patrons. Often, faculty and staff have a (usually nonhazardous!) Duty to these people.

Some schools are set up and run by students; in effect, they're consumer cooperatives for purchasing education. A number of universities in the Middle Ages worked like this, for example. The teachers and staff work for the organization, which is controlled by the students as a group. Schools of this sort tend to teach what their students find useful or interesting.

Other schools are set up and run by teachers; in effect, they're producer cooperatives or guilds. The instructors may be employees of the school or they may freelance, but they control the school and its staff (if any). Such institutions tend to teach what the teachers find interesting or worthwhile, balanced against the need to attract students. A school may induce students to study subjects by making such studies requirements of attendance or prerequisites for popular courses. If instructors have different ranks, the lower-ranked ones are likely to get the required-but-unexciting courses.

Yet other schools are created by organizations and serve organizational goals. There are several different ways a school can provide such service:

● The school trains the organization's personnel in the skills needed to perform their duties. This may be basic instruction for new recruits or skill development for more-experienced staff members.

● The school is a commercial enterprise, teaching particular skills or subjects to anyone who will pay to learn them (or to children whose parents will pay).

● The school is funded by a government or a nonprofit organization. It teaches what will benefit the population the organization serves – or, sometimes, what will serve the organization's goals, perhaps at the expense of the population. (Such instruction may including exposure to propaganda.)

ACADEMIC COMMUNITIES

Students at a school have some contact with each other in their classes. This may give rise to a community of students – especially in a residential school (*Schools as Cities,* below) or a school that serves a particular neighborhood or village. The community as a whole may have a degree of loyalty to the school. This can be referred to in judging reactions to a change of school policy or to a situation that harms or threatens the school.

Many schools are small enough that the entire population – or a substantial fraction of it – can be gathered together as an audience and addressed face to face. This enables use of Public Speaking as an Influence skill, as discussed in *GURPS Social Engineering.* A successful speech produces a "Good" (generally favorable) reaction to a proposed new policy. The GM may want to allow assuming a persona (*In the Classroom,* p. 26) to influence this process: Roll a Quick Contest of Acting+5 or Teaching+3 vs. the highest IQ in the audience; victory gives +1 to Public Speaking, while loss gives -1. Optionally, to save time, the GM may simply permit a complementary skill roll (p. 16) against Acting or Teaching-2.

If most of the campaign's action takes place at the school (see Chapter 4), Reputation in the academic community may count for more in terms of people affected. Members of the community might be defined as a "large class of people" (×1/2 base cost) or possibly "almost everyone *except* one large class" (×2/3 base cost). The GM may even choose to treat the school as a minisociety (see *GURPS Social Engineering*) with its own internal Status ladder, limited to no more than four levels. Within the community, Academic Rank might count toward Status.

RIVAL SCHOOLS

A common trope in stories about schools is competition with other schools. This partly reflects real-world rivalries, like Oxford and Cambridge, Harvard and Yale, or West Point and Annapolis. Rivalry at this level is often only a quirk: students tell jokes about their rivals and cheer for their school's teams, and may continue to do so for the rest of their lives.

In fiction, the opposition often gets more serious – for the students or for the school as a whole. Students have Enemy (Rival) if the other school's students play practical jokes on them, or challenge them to duels, or take sporting events overly seriously and use underhanded tricks to win; they have Enemy (Hunter) if they're faced with actual physical attacks. A school may face a rival that competes for funds or awards. It might have to deal with attempts to discredit its research, or even attacks on its students, staff, or facilities – for example, by a spy school on the other side or an academy for aspiring villains (or heroes).

EXTERNAL COMMUNITIES

Schools also have relationships with external communities – from the nearest village or town to an entire country, planet, or interstellar empire. Such interactions with outside society extend well beyond a school's relationship with the organization that set it up (if there is one).

It's often convenient to represent this by giving the school a Reputation that transfers to everyone connected with it. This shouldn't go beyond +1 or -1; for instance, "Student at Harvard" ought not to produce extreme changes in attitude, whether the subtext is "really bright and likely to be successful" or "young idiot with too much money and privilege." In *extreme* cases, an organization might be a source of Social Regard or Social Stigma; e.g., students of an assassins' school may have a level of Social Regard (Feared).

A school can try to change its image in a wider community through public-relations efforts, using the rules for propaganda in *GURPS Social Engineering.* In addition to the standard modifiers, school personnel – or even students – may contribute volunteer work.

CHAPTER FOUR
CAMPAIGNS

The previous chapters show how training and education can play a role in the game. It's possible to build an *entire* *campaign* around a school, however. From Professor Xavier's School for Gifted Youngsters to Hogwarts, teaching organizations have been a major theme in recent popular culture.

In other schools girls are sent out quite unprepared into a merciless world, but when our girls leave here, it is the merciless world which has to be prepared.
*– Miss Fritton, in **The Belles of St Trinians***

Such a campaign will often treat learning and teaching dramatically (see pp. 7-8, 19-20). But it needs to do more than that! The school can be the springboard for other forms of drama. Its yearly round of activities, its students' progress, and its projects and activities can give rise to dramatic episodes or entire story arcs.

POINT OF VIEW

The first question for a school-based campaign is who its heroes are. Most school stories focus on the students, but teachers or the people who run the place are other options.

A more challenging possibility is the mixed group. Students, teachers, and even an administrator or two might band together to go on secret adventures or defend against unrecognized threats. This usually works best if the people at the top are mostly uninvolved or even unaware; that way, they won't step in and take charge. If the players can handle running multiple characters apiece, having each play a student *and* a member of the faculty or staff can give an interesting double perspective.

FOCUS ON STUDENTS

A student-based campaign needs to keep track of what the students are studying. The rules under *Study Rolls: Learning as a Job* (p. 5) make a good framework. This can be combined with spending points on extracurricular skills, either gradually or in dramatic montages (pp. 19-20). Many scenarios can take off from things students work on – especially if they take an interest in forbidden or dangerous subjects!

In most realistic campaigns, students will start with 25-75 points. The GM might raise this to 50-100 points if they have special talents such as Magery or come from privileged backgrounds. Gifted young martial artists or apprentice supers might be built on 200 points or more.

FOCUS ON TEACHERS

A teacher-based campaign will usually involve job rolls for the instructors (whether as employees or as freelancers), though these might simply be part of the background. Occasional classroom scenes provide atmosphere and establish character. The campaign needs both a general sense of the students' attitudes and a number of individual students for PCs to contend with – preferably ones who will create interesting problems!

Such campaigns often feature instructors pursuing research projects, going on expeditions, inventing things, or otherwise seeking goals apart from teaching. Advanced students may be drawn into such efforts; the school might even make this part of their training.

Teachers who make interesting protagonists tend to be built on 100-150 points. The higher point total is the bare minimum for mages, martial-arts masters, and other gifted figures.

ORGANIZATIONAL FOCUS

An organization-based campaign will emphasize the motives and decisions of the people who set up or are running a school. A good first step is coming up with organizational statistics for the school (*Statistics*, p. 27). There are several choices to be made in such a campaign:

● Is the school offering a service to suitable customers as a way of making money, training new personnel for a larger organization that sponsors it, or delivering a service to the public for such a sponsor?

● Is the school simply a useful tool that could be closed down or sold if it stopped being useful, or is its survival an end in itself?

● Will the main emphasis be tradition or innovation?

The people who run the school, or who sponsor it, should have any traits necessary to reflect their relationship with it.

The school's needs may also dictate some of their skills. Make sure that their point totals allow for these requirements.

Setting up a school can be an option for the heroes of an ongoing campaign; e.g., an established team of supers might establish a training program, either for children with inherited powers or for newly empowered adults. Such a school's very *existence* may be an innovation! The founders will often emphasize training new personnel, but if they plan to teach there themselves, they may regard it more as a marketable service.

TROPES

Schools appear as settings in diverse genres: academies of magic in fantasy, *salles d'armes* in swashbuckling adventure, colleges filled with eccentric academics in horror tales, orbiting spaceships in science fiction. But there are story elements that recur in all these stories, regardless of genre.

Change of Pace: You've been through a big crisis – a final exam, or a life-and-death struggle – or you have one coming up. You and your friends take some time off: going on a short trip, visiting a bar or a bathhouse, or just hanging out. Such episodes offer a break in tension and an opportunity for characterization.

Clubs: You and your fellow students have joined a club, or formed a new one. A big theme in anime and manga, where it often substitutes for *Unlikely Allies.* Clubs can be built as organizations (see **GURPS Boardroom and Curia**).

The Eccentric: There's an instructor at your school who doesn't fit in. In a student-oriented campaign, he may be your Contact or Patron (or Enemy!); in a teacher-oriented one, he's the subject of faculty gossip. In *any* campaign, he's one of the administration's headaches.

Initiation: It's your first day, or your first year, and you're at the bottom of the social scale – and the older students want to make sure you know it. How will you cope?

The Library: It's amazing what you can find on the shelves (see *Searchable Archives,* p. 30): old yearbooks with clues to school history, obscure grimoires, expensive reference books . . . In many school campaigns, the library is bigger than any real school could afford – often filled with special collections and hidden annexes.

Live Ammo: Your instructors believe in the educational effects of actual danger, and include it in training exercises. This may take any form from military training under actual fire (not aimed to hit, but accidents happen!) to "danger rooms" for supers.

The Rival School: Your school has an opposite number that people compare it with (*Rival Schools,* p. 33). You face its students in sporting events, duels, or contests of magical skill. In supers campaigns, apprentice heroes may go up against apprentice *villains!*

Sparring Practice: Your martial-arts school, or the combat-arts course at your regular school, has its students practice their skills against each other. Scenes of fighting practice can provide regular punctuation to game sessions (see *Tests,* p. 8).

Sports: Students at your school participate in sports and possibly compete with other schools. You may be a player or a member of the cheering audience. In more-fantastic genres, school sports may include anything from broomstick riding to fighting battles in vintage tanks!

To the Barricades: There's a revolution going on in your country, and naturally the students have been drawn in. This is your chance to leave the classroom and fight for justice – or join in the councils of the revolution's leaders.

Town vs. Gown: Your school is in a city, or just outside one – and it's a small city and a big school, so the students are a very visible presence, one the "townies" resent (see *External Communities,* p. 33). This may lead to rude remarks and bar fights, or to rioting and lynching. Related tropes for younger students are clashes between public and private school students, or between day students and boarders at the same school.

Uniforms: Whether it's sailor suits, wizards' robes, or masks and tights, students at your school are known by what they wear.

Unlikely Allies: Early in your school career – maybe on your first day! – you encountered them: other students who became your closest friends, despite totally different backgrounds and goals. When you had strange experiences, or took up some risky venture, you turned to them . . .

Hogwarts, Hogwarts, Hoggy Warty Hogwarts,
Teach us something, please,
Whether we be old and bald
Or young with scabby knees. . . .
– Hogwarts school song, from J.K. Rowling,
Harry Potter and the Sorceror's Stone

CAMPAIGN TYPES

How does a school-based campaign actually work? Several different approaches are possible.

THE CLOISTER

In some campaigns, the PCs will spend most of their time at school and most of their effort on school activities. Students study or train, teachers instruct them or do research, and the organization keeps the school running and the scholastic community satisfied.

Sound a little dull? It doesn't have to be! Several types of drama arise naturally in school-focused campaigns.

Personal Growth: Students aren't just learning skills – often, they're also growing up and struggling to gain an adult perspective on their lives. Young teachers are mastering their profession and staking out particular subjects and skills as their personal specialties; older ones can work on large-scale projects or become leaders in the scholastic community.

Relationships: Within the school, the same people meet each other over and over. They'll have plenty of opportunities to develop friendships, rivalries, and factions.

Mysteries: A school may hold puzzles to solve and secrets to uncover. What's in a student or teacher's past, and why does it matter? What undue influence or even crime is being covered up? What hidden rooms or rare books might be found with a thorough enough search?

EXPEDITIONS

Academic pursuits might take students and teachers outside of their schools. For students, this may be an addition to their training – for example, exposure to new natural environments, foreign languages, or unfamiliar cultures. Faculty might carry on research in distant places, or search for exotic materials for scientific or magical inventions. (Modern universities formalize this sort of pursuit by granting sabbaticals to faculty members.) A campaign could follow its protagonists on a single long expedition, often to some distant land, or on a series of shorter ones, perhaps as short as day trips.

FORTRESS ACADEMIA

Some schools don't take much interest in the outside world – but the outside world takes an interest in *them*. The school may seem secure, but it's actually endangered. In a horror campaign, the threat might be subtle corruption or a small-scale invasion (leading to what *GURPS Horror* calls an *invaded house* setting); in a post-apocalyptic world, it may be an invasion of nomadic warriors or inhuman monsters. The students and teachers have to take up the role of defenders – whether or not they're ready for it. In this campaign, the heroes stay at the school but have goals other than study.

JUNIOR ACHIEVEMENT

Some schools *do* focus on the world around them. Business and professional schools, military, police, and space academies, training programs for psis or supers . . . all of them ready students for outside activities. Such a school can be home to a band of novice adventurers. Stories in such a campaign focus on dealing with situations outside the school; the school itself is a refuge, a source of training and equipment, and a place to relax and socialize. This kind of campaign is well suited to points-based learning between adventures, or even to heroic learning (pp. 19-20).
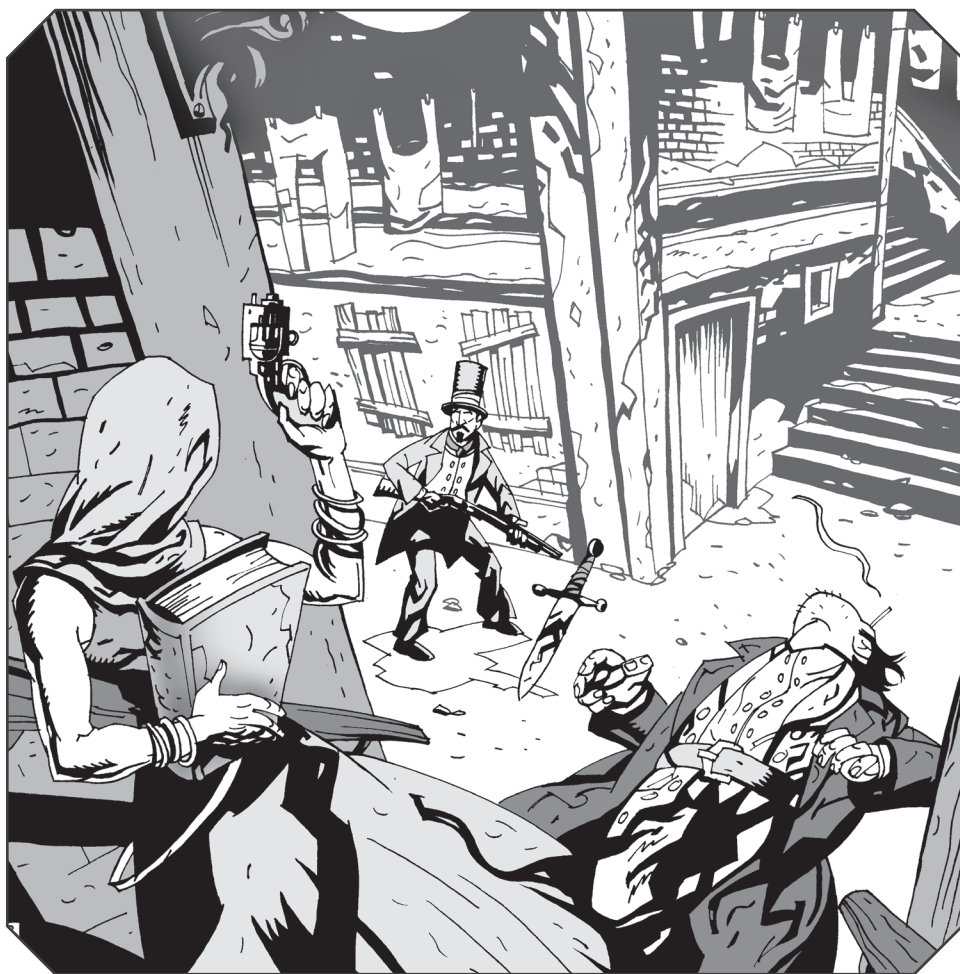
LEARNING TIMES

Use this table as a reference for learning times and situations that modify them.

Base Number of Hours Gained: Start with "Hours Gained per Study Hour" if using *Time-Based Learning* (pp. 4-5), or "Monthly Study Base" if using *Study Rolls: Learning as a Job* (p. 5).

Multipliers for Hours Gained: Factors in the "Multiplier" column multiply hours gained from time-based learning *or* study rolls.

Adjustments for Hours Gained: Use "Percentage" to adjust hours gained per study hour *or* apply "Study Roll Modifier" to study rolls.

Base Number of Hours Gained

Type of Learning	Hours Gained per Study Hour	Monthly Study Base	Page	Notes
On the job	0.25	–	4	
Self-study	0.5	75 hours	5	
Self-study with Autohypnosis	0.75	75 hours	15-16	Autohypnosis is complementary to Will for study rolls.
Self-study with Dyslexia	0.25	37.5 hours	15	For book-learned subjects, if learnable at all.
Self-study with Dyslexia and Autohypnosis	0.375	37.5 hours	15-16	*Both* previous notes apply!
Self-study of a language	0.25	37.5 hours	11	×4 speed with Linguistics roll.
Self-study of a spell	0.25	37.5 hours	9	×2 speed with Thaumatology roll.
Formal instruction	1.00	150 hours	4-5	
Intensive training	2.00	800 hours	5	

Multipliers for Hours Gained

Trait/Condition	Multiplier	Page	Notes
Accelerated Learning 1	×1.5	13	See also *Smart Drugs* (p. 14).
Accelerated Learning 2	×2	13	See also *Smart Drugs* (p. 14).
Anabolic steroids	×2	14	For certain physical skills.
Formal instruction, temporary/improvised facilities	×0.75	28-29	For IQ-based technological skills.
Self-study, no facilities	×0.75	28	
Self-study, standard or better facilities	×1.25	29	

JITT, "just-in-time-training" (also, "just-in-time-trainee", when referring to a victim of the procedure). A treatment that combines addressin therapy and intense data exposure, capable of installing large skill sets in less than 100 hours.

*– Vernor Vinge, **Rainbows End***

Adjustments for Hours Gained

Trait/Condition	Percentage	Study Roll Modifier	Page	Notes
Attentive	+10%	+1	15	Only one subject.
Computer Operation at default	-10%	-1	16	When using computer materials.
Critical success on Teaching roll	+50%	+5	17, 19	
Deep Study	–	+1	13	If not using study rolls, gives -10% to study time required.
Doesn't Sleep	–	+8	13	
Exercises technique	–	+1/point	24	Student bonus for *teacher's* points in technique. Only for first two points in a skill.
Layabout	-10%	-1	15	
Laziness	-50%	-5	15	
Less Sleep	–	+1/level	13	
Math-Shy	-10%	-1	15	When learning quantitative subjects.
Mild Dyslexia	-10%	-1	15	When learning from texts.
Quirk-level Delusion	–	-1	22	After critically failed monthly Teaching roll.
Self-study, superior facilities	–	+1/5 points as Patron	29	Bonuses above +2 limited to TL/2, rounded down.
Single-Minded	+30%	+3	14	Only one subject. Subtract 50 hours for time spent on other subjects. No effect on intensive training.
Symbol-Shy	-10%	-1	15	When learning from graphical material.
Talent	–	+1/level	14	If not using study rolls, each level of Talent gives -10% to study time required.
Teacher has Distractible	–	-1	22	Student penalty for *teacher's* quirk.
Teacher has:				
Short Attention Span (12)	–	-3	22-23	Student penalty for *teacher's* disadvantage.
Short Attention Span (9)	–	-6		
Short Attention Span (6)	–	-9		

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A surprising number of works tell tales of schools, learning, teaching, and so on, and might prove inspirational for campaigns that explore such themes.

> *Every desk had two key reference books chained to it, books that Gurlen expected everyone to be able to hunt through and find any indicated text at a moment's notice.*
>
> *– Garth Nix,* **Clariel**

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Card, Orson Scott. *Ender's Game* (Tor, 1994). The first novel in a highly regarded series portrays the training of a brilliant child, who is a potential military genius, for service in an interstellar war.

Dean, Pamela. *Tam Lin* (Firebird, 2006). Interweaves the academic careers of a group of students at a Midwestern university with a complex supernatural plot.

Dent, Lester (as Kenneth Robeson). *The Man of Bronze & The Land of Terror* (Nostalgia Ventures, 2008). *The Man of Bronze* kicks off a long-running pulp series about a man trained to near-superhuman abilities.

Grossman, Lev. *The Magicians* (Plume, 2010). A postmodern exploration of the education of wizards, set at a present-day academy of magic.

Heinlein, Robert A. *Space Cadet* (Orb, 2006). Young men from all over the solar system train to become officers of the Space Patrol – a modern-day version of Plato's "guardians."

Heinlein, Robert A. *Starship Troopers* (Ace, 1987). The education of a soldier and a citizen – from high school through boot camp to OCS – is a central theme of this classic of military science fiction.

Heinlein, Robert A. *Tunnel in the Sky* (Pocket Books, 2005). A final examination in a course in survival, held on another planet, turns into a prolonged adventure.

Herbert, Frank. *Dune* (Ace, 1990). Much of this novel concerns the education of its hero, first as a nobleman's son and then as a refugee among the tribes of a desert planet.

Hesse, Hermann. *The Glass Bead Game* (Picador, 2002). The life story of a scholar in a future European society, focused on an arcane game of manipulating cultural symbols – and on his eventual renunciation of it.

Kipling, Rudyard. *Kim* (Simon & Brown, 2011). The story of an orphaned Irish boy in India being trained to serve the British government as a spy.

Kipling, Rudyard. *Stalky & Co.* (Elibron Classics, 2000). A series of school stories written in a subversive spirit that celebrates its characters' cleverness in breaking the rules.

Le Guin, Ursula. *A Wizard of Earthsea* (HMH Books for Young Readers, 2012). A story of the education of a great wizard, with one of the first literary portrayals of a school of magic.

Leiber, Fritz. *Conjure Wife* (Orb, 2009). An anthropology professor at a small-town college discovers that his wife is using magic – and so are all the other faculty wives.

Lovecraft, H.P. *At the Mountains of Madness* (Sterling, 2012). Perhaps the most purely science fictional of Lovecraft's stories, in which a geological expedition sent by Miskatonic University to explore Antarctica's interior makes unexpected discoveries.

Lynch, Scott. *The Lies of Locke Lamora* (Del Rey, 2007). The education of a young thief and conman in a corrupt fantasy city.

Rowling, J.K. *Harry Potter and the Sorcerer's Stone* (Scholastic Press, 1998). The best-known magical school story of the present day. Hogwarts embodies nearly all the tropes of classic British school stories.

Sayers, Dorothy L. *Gaudy Night* (Harper, 2012). Sayers sends Harriet Vane back to her college at Oxford, where she becomes involved in solving a mystery and in debates over scholarly ethics.

Shaw, Bernard. *Pygmalion* (Dover, 1994). In the play that inspired *My Fair Lady,* Shaw portrays the education of a flower girl in upper-class speech and manners.

Smith, E.E. *Galactic Patrol* (One Earth Books, 2014). Midway through his early adventures, Lensman Kimball Kinnison returns to Arisia for advanced training by an alien superintelligence.

Tchaikovsky, Adrian. *Guns of the Dawn* (Tor, 2015). In a fantasy world inspired by Napoleonic Europe, one side is desperate enough to call women into military service. The story of a young gentlewoman who goes through training, "sees the elephant," and comes home changed.

Vinge, Vernor. *Rainbows End* (Tor, 2007). In this near-future science-fiction novel, both virtual-reality-based high school education and technologically accelerated learning are crucial to the plot.

Walton, Jo. *The Just City* (Tor, 2015). The goddess Athene attempts to found a city based on Plato's Republic and to educate several thousand children as its future citizens – only to have Socrates disrupt her plans!

White, T.H. *The Sword in the Stone* (Philomel Books, 1993). The wizard Merlin uses his magical abilities to tutor a young boy called "the Wart."

Films

Batman Begins (Christopher Nolan, 2005). Bruce Wayne's preparation for a career as a superhero is a good example of becoming Trained by a Master.

Belles of St. Trinian's, The (Frank Launder, 1954). A comedic reversal of morally uplifting school stories: The St. Trinian's girls' main pursuits are crime, vice, and cunning schemes for making money.

Divergent (Neil Burger, 2014). A major element of this young-adult dystopia is the heroine's training as a warrior while she conceals her potential fitness for multiple roles.

Hanna (Joe Wright, 2011). A "rite of passage" story about a girl genetically engineered as a super-soldier, and trained since age two as a spy and assassin.

Léon: The Professional (Luc Besson, 1994). The title character, a hitman, takes in the young daughter of a murdered couple and teaches her his trade.

Mask of Zorro, The (Martin Campbell, 1998). Great training sequences between the original Zorro, Don Diego de la Vega, and his chosen successor, Alejandro Murrieta.

X-Men: First Class (Matthew Vaughn, 2011). A film treatment of the founding of the prototype school for super-powered heroes.

Remember when this place was just flame-throwers and rotating knives? I miss that.

– Kitty Pryde, in **Astonishing X-Men**

Television Series

Buffy the Vampire Slayer (Joss Whedon, 1997-2003). An important focus of this series is the relationship between Buffy and her mentor and trainer, Rupert Giles. Also notable for the high-school setting of the first three seasons.

Gakuen Alice (Takahiro Ōmori, 2004-2005). An anime treatment of a school for the super-powered – and of its tensions and secrets.

Girls und Panzer (Tsutomu Mizushima, 2012-2013). An unusual school sports story: Miho Nishizumi becomes the leader of a girls' school team for *sensha-dō* (the art and sport of tank warfare).

Glee (Ryan Murphy, Brad Falchuk, and Ian Brennan, 2009-2015). A hybrid of musical comedy and soap opera, focused on a struggling high-school vocal group and its teacher.

Kung Fu (Ed Spielman, Jerry Thorpe, and Herman Miller, 1972-1975). The original martial-arts Western series. Nearly every episode has scenes of its hero as a boy studying at the Shaolin temple.

Melancholy of Haruhi Suzumiya, The (Tatsuya Ishihara, 2006 and 2009). A comedy set in an ordinary high school with a club whose members nearly all have extraordinary abilities.

Revolutionary Girl Utena (Kunihiko Ikihara, 1997). A magical-girl drama whose protagonist must fight a series of sword duels with other students at Ohtori Academy to realize her destiny.

Comics and Graphic Novels

Foglio, Phil and Kaja. *Girl Genius* (Studio Foglio, 2001-present). A young woman studying at a steampunk university gets drawn into wild mad-science adventures.

Robinson, Jimmie. *Five Weapons* (Image Comics, 2013-2014). A whimsical storyline about a young outsider enrolled at a boarding school for assassins.

Whedon, Joss. *Astonishing X-Men* (Marvel Comics, 2004-2008). A new exploration of the classic school-based team and the relationships between its students and teachers.

Williams, Aaron. *PS238* (Dork Storm Press, 2003-2006; Do Gooder Press, 2007-present). Collected volumes of an ongoing webcomic about an unusual school for supers – not a high school or college, but an *elementary* school. Good characterization and an excellent portrayal of the central character's relationship with his adult mentor.

Games

Chart, David. **Ars Magica,** *Fifth Edition* (Atlas Games, 2004). The quintessential academic RPG (originally created by Jonathan Tweet and Mark Rein●Hagen), where the academics are scholarly wizards pursuing advanced research and sending their apprentices to collect arcane materials.

Johnson, Sam. **Miskatonic University** (Chaosium, 2005). A **Call of Cthulhu** supplement with all the details on H.P. Lovecraft's fictional New England university.

Long, Steven S. and Williams, Aaron. **PS238 – The Roleplaying Game** (Hero Games, 2008). A version of **Champions** custom fitted to roleplaying in the elementary school for supers.

Masters, Phil. **Transhuman Space: Personnel Files 5 – School Days 2100** (Steve Jackson Games, 2009). A sourcebook for campaigns about school-age young people in an ultra-tech future, with write-ups of five potential characters and their AI companions.

McCoy, Elizabeth and Milliken, Walter. **GURPS IOU** (Steve Jackson Games, 2000). A classic **GURPS** supplement. Students at many fictional universities accidentally learn of Things Man Was Not Meant To Know – but at IOU, they're a required course!

Peregrine, Andrew. **Hellcats and Hockeysticks** (Cubicle 7 Entertainment, 2010). If you enjoy St. Trinian's, this is the RPG for you.

Stoddard, William H. **GURPS Locations: Worminghall** (Steve Jackson Games, 2012). A sourcebook for campaigns that feature magical training, set in a medieval university town. Includes new rules for studying magic and gradually learning spells.

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The wise student hears of Tao and practices it diligently.
The average student hears of Tao and gives it thought now and again.
The foolish student hears of Tao and laughs aloud.
If there were no laughter, Tao would not be what it is.

*– **Tao Te Ching***

> *"Now that's true,"* Sokrates said. *"And perhaps what I shall teach is not what they expect me to teach."*
>
> *– Jo Walton,* **The Just City**