

Both main and alternative schools use variations of these systems:

In appendix, these are listed like a manual. In book, they're discovered slowly from pov chars (like in HP)

NOTE: In this fictional world, "Guardians" are a form of AI

This is not that applicable to our world because employers rarely care about the specific stuff you learned in school, unless in certain cases. They'd rather just test you in an interview on the specific stuff they need.

But this is not just employers- it's admissions. When "employers" is used in this doc, it means "college admissions" or some other organization requiring academic knowledge you obtain during school. This is much better for admissions than just class grades.

In story, off-hand mention some alternative designs that were passed over

In this story, the traditional school curriculum already has all of the features described below. The 'new logic school' that was experimentally tried last generation and since was offered independently gains a large movement and now a few public schools are implementing it. The logic school was supported to have students make better decisions in a world where unsolved murders, mob rule, etc. have become rampant despite a centralized mass surveillance and personal cute AI 'guardians' watching over (somehow, the formerly unbeatable AI guardians have been destroyed by an unknown means).

Another school, 'intuition school' is offered not by govt. It teaches students that all is neural network and each should not aim to be objectively right, but argue their point, and the 'emergence' will decide what should be. Does not support reductionist method (in its view) of breaking statements into arguments/assumptions, but about being aware when you're not 'being true to yourself'. Teaches psychological self-therapy.

Both new curriculums are shady and controversial b/c seems to have suspected agenda of forcing students to think in certain way, as they discuss psychologically sensitive issues. Many disagree with discussing controversial topics that may cause panic attacks, but the schools reassure them that they are introducing them gently in a controlled environment so that students have training to face these issues better in the real world. Supporters claim 'studies' which say that logic school students do better at work which is why colleges/employers favor them, but others say these are misinterpreted or fraudulent studies and that this is a fad.

Aim of both school is for student to think individually and escape mind control from the memes. Logic school focuses more on not getting facts wrong and being comfortable with uncertainty, intuition school focuses more on growing your own personal curiosity and talents.

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New learning system- Main points (pick and choose separately, not all required as each module is independently stand-alone but can be mixed with others):

1. Detailed Progress report employers and students look at using filtering and summarizing software
 - a. This entire 'progress report' system relies on employers and colleges using filtering programs to look at the specific history of a person's time in school, instead of just their

GPA or what grade they got in a class. Within 5mins, they find out a lot for each candidate. It only takes 5min to hone in on what a candidate does when you have software that auto-creates a filtered view of a student's summary on a specific area you're looking for.

- b. Every single question you answer is put on record. You may re-do a subject; this time, you will have different questions (see section X to how to ensure you'll have different exam questions)
 - c. Employers can filter your report by multiple dimensions, such as 'objective exam questions', multiple choice exams, open ended exams, assignments, teacher feedback, etc.
 - d. Beneficial for employers b/c have better idea of how a candidate did in school. Beneficial for students b/c now they're not judged by just a single grade or GPA, but a fairer assessment of how they did in detail in comparison to others.
 - e. Downside: what you write is in permanent record and anyone can see it. Thus, you may choose to hide whatever you want to give employers a select view. Employers will see you hid that item, and some may understand, others will not. This allows you to pair with an employee who sees eye to eye with you better. You can give a reason for hiding such as "question discussed personal issues I do not wish to reveal" or "other (write here)" or "no reason" or "did not do well". School questions should not force students to answer sensitive, controversial topics. You can always just use "GPA only" option, too, by hiding everything except GPA, or you can hide GPA, etc. Hiding has multiple reasons, not just you did bad; it may be that your philosophy is that people should not be judged so detailed. Then this is good for employers who think the same way.
 - f. There is not just 1 degree to earn, but multiple certificates based on what lvls you complete. The aim is not to just earn certificates b/c every progress you made is tracked and analyzed by employers using data mining and stats, not just looking at one measure. Illustrate this w/ example of different employers looking at candidates. Employers rarely care for certificates, but filter your large computational resume to search for specifics they want. B/c of advanced filtering programs, they can do this fast, and aggregate candidates' status in one specific area to analyze them.
 - g. Employers can search by keyword/tags.
 - h. Not just analyze specific answers on questions, but also the pace at which students learned. Did they complete multiple exams in only a week? Did they start a new take home assignment then finish it in a few days? When did they lag- was it during certain holidays?
2. Students go at their own pace; customized learning but grading is still objective
- a. If concepts build on one another, avoid reliance on 'being left behind'. Allow students to go thru modules at their own pace by rewatching videos. Teacher is there not to get all students on same page, but to answer questions at all levels. No shared assignments; teacher is trained to grade any assignment at any time. Restructures the role of teacher from lecturer to tutor
 - b. There is a personal deadline per student. A computer system determines the # of days a student has to finish an assignment or exam. Student may hand in before deadline or wait. If student misses it, they can re-do it but it goes on their permanent record.

Student record tracks their entire progress. Records are measured both by 'absolute' and by 'improvement'. Employers and other admissions orgs are free to look at whatever criteria they decide is more imp't for their company.

- c. Exam time: student requests it, and a team of trained professionals watches them. One is sent in from govt to watch, if teacher has no time. Guardians watch too. Group students taking exam at same time/day in same classroom even if they're taking different exams.
- d. Student MUST choose the next assignment in their course (which is linear to ensure objective grading, though there is choice of say different assignment variations) and thus always have deadline. Deadlines may be paused in medical/etc emergency.
- e. Individual help is done through both student tutors and paid teachers. Student tutors are unpaid and get resume cred, but are less effective.
- f. The only purpose of being in a classroom is to make sure you do work. Multiple teachers in one classroom teaching the same subject. Students can take different subjects at different times, and scheduler decides how to place students in the same classroom. Each class ranges from 2 to 20 students. Mixed of interactive real time lecturing, individually watching a video, and listening to videos while a teacher is always on call to assist the subgroup of students watching a video. Assign 1 teacher per 5 students; each subgroup is decided by algorithm that ensures diversity in opinion within a group. Groups change every day so that the entire class of students+teachers gets to know each other. Assign a head teacher per class to ensure no in-fighting between teachers; ALL teachers must be on same page. Thus, max of 5 teachers per class.
 - i. Little to No group projects?
- g. Students must be forced to watch a video in their curriculum when in a classroom. Else, they get points off for attendance. Whether they pay attention to it or not is up to them, as students should be free to slack off whenever they want just like a typical classroom. The teacher, at any time, can talk to the student and tell them to pay attention or lose attendance points. Each student has headphones if listening, or will be reading.
 - i. This is an issue if students learn better in a traditional lecturing interactive classroom, so they can always choose this option. Thus, we group students based on how they learn best.
- h. Progress is only linear if subjects build on one another. For subjects that don't, students go on the pace they want.
- i. For students who decide not to do 'traditional learning' (they can switch to it at anytime, back and forth- only thing that matters is their exam/assignment answers; also they can mix/match depending on subject, so 'individual progress' for chem and 'interactive' for math, etc.): to keep these students connected in discussion with each other, students are free to drop in seminars held by teachers, where seminars will have students at similar progress level. Thus, teachers still have role as lecturer and engage groups of students on same topic. Smaller groups allows students to have a chance to speak if they want. To progress, students must drop in on seminar- these are required. Assign 1 teacher per 30 students, to ensure there is never a 'max capacity' and you must wait for another seminar. Seminars may be graded/ungraded.

- j. One issue is that a teacher may find they end up with no students. This is harsh, but it happens. Just like how a salesperson may sell nothing compared to another salesperson, or one comedian may be more popular than another comedian. However, this is optional. A school may require attendance to ensure the teacher acts as someone who makes sure students don't slack off and keeps them motivated on track. So both trad and nontrad may require attendance and no switching b/w teachers, though they may drop in a classroom to audit if it's capacity isn't filled.
 - i. Can students switch to another teacher at any time? Only if on non-traditional path. They may drop in to another teacher at any time.
- k. Students can utilize resources of both 'individual' (nontrad) and 'group interactive' (trad) but how they take exams/do assignments must be chosen at start of course, allowing switching before the first exam is taken.
- l. Downsides: require teachers to be agile and adaptable and multi-task. May confuse teachers, which decreases how well students learn
- m. Go at your own pace: no lectures, but teacher is there for you to ask any question about during classtime and office hours. May participate in group seminars (optional) for extra stuff to put on transcript. May attend traditional lectures taught by same (?) teachers. Take exams whenever you want. Class is united by teachers discussing+teaching non-graded current events outside of curriculum instead of curriculum; students may respond to current events (responses recorded as extra item on transcript) but no grade is given. Issue is this may cause students to slack off and not get benefits of group learning.
 - i. To reap benefits of group learning: if a teacher answers a student's question, that is recorded for future students to hear. An archive of questions students asked that you can filter/sort/query from, or just scroll through. If a classmate asked a question just last week b/c they were ahead, you can 'follow up' that question and the teacher's response to it will also be recorded. All recordings must be archived only with participating students' and teachers' consent.
 - ii. To prevent slack off, making stagnant or no/very slow progress on your transcript report is VERY bad for admissions/employers; they see your rate of progress.
- n. Everyone at the same pace: lectures and exams are fixed pace for everyone. May participate in group seminars (optional) for extra stuff to put on transcript. May attend individual classes as 'study halls' where they can ask teachers questions about material that is not where the class is currently at (Eg past or future or tangential material). Teachers also have office hours. Pros is that whatever questions answered by teacher, entire class learns it too. Also, everyone can help one another.
 - i. Alternatively, everyone at same pace, but you can optionally re-do lessons or go forward and finish early.
- o. It may be possible for students to customize when to take each class (offer same subj at diff times). But for simplicity, in this story, have all subjects be taught at the same time. Also for simplicity, force students to be taught by diff teachers for 'go at own' vs 'everyone same' and, to prevent teachers from losing students, don't allow students to

switch after first 2 weeks (before 1st graded item). If teacher has no students left, switch them to work elsewhere for the semester.

- i. Majority of students will probably go at same pace with one another, so we can still have all students be forced to attend lecture, but then take exams whenever they want (since questions different each time and they cant tell others the right answers) and watch videos/archived questions outside of the lecture such as at home or during study hall (twice a week during the subject's period). This makes things easier to not have to hire multiple teachers.
 - ii. Or can switch from 'all same' to 'own pace' at any time?
 - p. If too many students do 'own pace', a school may ask the more central managing branches for extra help from 'reserves of teachers' just like how military has troops on reserves. Statistically predict how long each student will need to ask questions, and thus how many teachers to put in study hall.
 - i. Remote instructors: centralized system has teachers on reserves. Either their job is reserves or their district lacked students so they were put on reserve. They may travel physically or virtually to be a temp instructor at a district.
 - q. Give each student a limit on how long they can ask teachers questions. Prevents students from taking up too much time. But what if a teacher has too much time in study hall while a student reached limit? Thus, only give a refractory cooldown period. A student can only engage a teacher's attention for at most say 5mins. After that is cooldown when another can ask question. If no one asks during 5mins, then the student can take up more of teacher's time. Students are given less priority if they already ask questions.
 - r. It is decided that to reduce admin and exam confusion, 'at your own pace' and 'at the same pace' must be chosen within 2 weeks and with no switching to the other. This is done by-semester and by-subject. However, 'at your own pace' allows you to audit
 - s. All lectures recorded, but if a single student/teacher votes to not put lecture up, it's destroyed. Or, a 'cut' version can be put up if all voters agree too. Also, extracted snippets of indiv questions asked by a student + resulting discussion may be converted into text and put up if the participants in the cut extraction agree (does not require entire class to agree bc not all are in it).
 - t. A student can watch lectures/snippets from anywhere in country and from any time period. But these can be removed at request of a single participant within it. Teachers may create their own snippet of the video that removes all traces (even implied) of students in it, putting black circles over students, etc., and re-upload a video that was taken down. A strict niceness culture is drilled into students to prevent bullying over those who don't agree or agree to uploads; this is not perfect but nothing can really be done to prevent these typical human negative interactions, not just when it comes to voting on videos (students would still do this when it comes to, for instance, lunch).
3. A way to find study groups and like-minded or differently-minded people when studying certain subjects
- a. Students can choose to make their progress public, or visible to selected people. By default, is private. Once public, students in the same or different schools can find each

other to form study groups. The app will note if the student is 'on the same subject' or not.

4. You can return and redo anything at any time; your old records will still be kept though
 - a. Students are grouped together by age. All 14yo in same classroom (despite having individual diff progress), 15yo, etc. Then 18-22yo, 22-60yo, and 60 and above in 3 diff lvls. If you are 18yo and don't want to finish, you don't have to. But you will have no money- lunches are not free to those over 18yo. You finish when you want to. There is a 'minimum requirement' employers want. You can also return to your degree, but employers will know there is a gap in your learning and do not like that as much as someone who is fresh. This is different from college b/c college is specialized; this school does not contain college courses. There is no prereq to start this school- ANYONE can join.
 - b. (Only if indiv learning): When you go back and re-do and continue from any point, you don't need to repeat every subject, or even the entire year, because you go at your own pace.
 - c. Even if you got an A in a subject, you may redo it. This is helpful if say your last A in that subject was 10 years ago. If you're still sharp in it, you can probably complete all the exams in say a week and finish the class in a week.
 - d. Since you can return at any time, employers now can look at your most recent progress, taking it more into consideration than your old. For instance, if you went back and re-did just english class, and you did well on it this time over your old records, employers trust your more recent records more.

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New grading system- main points:

1. Grading is done by huge network of region-employed graders and AI from outside the school.
 - a. District of a single school has less freedom to create their own curriculum; must follow regional. This allows for objective comparison of students from different districts. Districts still have freedom on some level (eg. which teachers to hire, assemblies, etc), just not grading and exams and teaching material. This network both designs/maintains pool of questions and textbooks/videos/interactive games, and also grades real time exams.
 - b. Grading is transparent; students' names are censored always but they can choose to reveal their grade on a specific question to public, though by default it's private. This network can have a diversity of opinion, where the decisions made by each grader is made public (required, but not their name and identity and resume. Thus, you can analyze the pattern they make to see if they are biased towards grading a certain way. A grouping algorithm decides how to partition graders to ensure fairness and prevent bias, choosing which graders to assign to which problems based on their history. "new" graders are always mixed in with experienced graders, and the group of graders must always have more experienced graders. To assess grader experience, each employed

grader always must complete a series of fake questions to obtain an initial history. This initial history is not relied upon much at first.

- c. For math questions, there is only 1 right answer, but it's constantly checked upon and maintained. For english, there are a group of graders who give a multi-dim score, which is averaged in each dim. Note that their score is not the only decision; employers must look at the reason each grader gives. The employer is trained to understand how to interpret the progress report, and can disagree with certain graders by filtering them out, thus changing the score they look at (students can do this too).
2. To avoid cheating by memorizing previous exam answers, exam questions come from a pool of many, say 10,000 questions (each topic has its own pool). An exam has 10 questions. You cannot memorize 10,000 questions. Exams are taken in a closed, monitored room with guardians.
 - a. These questions were checked by millions of people and guardians, all crossed checked, too. $100 \text{ topics} * 10,000 \text{ questions} = 1 \text{ million questions}$. Each question checked by at least 5 people and 100 guardians (each guardian made from different source) and voted upon. Each person must be qualified by passing an entrance exam whose questions were unreleased before each annual examination, and must have minimum credentials. Questions are constantly checked by more people each day whose only job is to check questions. Number of confidence of good questions determines rate at which new questions are added; if too many unchecked questions, don't add new.
 - b. Weighted vs raw scores recorded in transcript; weighted based on how everyone historically who had that question did on it, weighted by their own histories using formulas that admissions is trained to understand
3. A more centralized grading and exam/assignment system means employers can better understand individual assignments as they're familiar with them too. Each assignment assess how well student does in certain areas, Eg) is this student good at understanding what a "mean" is in statistics?