

## Open Badges for Key Competencies

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**Abstract:** This position paper is a reflection based on the work done in the TRANSIt project in relation to the acquisition of key competencies. It explores why and how Open Badges could facilitate this acquisition and, conversely, how what we have learned from key competencies could feed-back into the development of Open Badges practice.

### Introduction

TRANSIt (<http://www.transit-project.eu/>) is a European project aiming at providing secondary school teachers with Open Educational Resources (OER) to support their learners in the acquisition of key competencies. The first idea, when introducing Open Badges in TRANSIt, was to recognise the competencies developed by the teachers after the completion of a series of training modules. Later on, a second idea emerged: the use of Open Badges as a means to develop learners' key competencies and recognise their acquisition. It is from this second idea that this position paper is drawn.

### About Open Badges

In September 2011, the Mozilla foundation launched the Open Badge Infrastructure project, a programme to make it easy to issue and share across the web digital badges recognising one's skills and achievements. Born from the need to recognise informal learning and provide a trustworthy means to show skills and achievements online, this initiative has now spread to the world of formal learning as well as to the world of work.

Open Badges are simple digital objects made of a picture in which a set of metadata have been "baked." The main metadata contained in an Open Badge provides information on:

- Who is the **issuer**? — teacher, learner, employer, organisation, etc. issuing the badge;
- Who is the **earner** — learner, school, teacher, employer, organisation, etc. receiving the badge;
- What are the **criteria** — the conditions for receiving the badge, what the receiver has done or can do (or aim at);
- What is the **evidence** — the artefacts demonstrating that the awarding criteria are fully satisfied.

Open Badges are issued in a wide variety of contexts to recognise:

- The acquisition of a competency;
- The achievement of a goal (personal or collective);
- The participation in an event (lecture, conference, trade fair, etc.);
- The visit to a place (museum, website, etc.); and more!

Badges can also be issued to set targets (aspirational badges) or to state personal values (using self-issued badges). Understanding the wide variety of badge types is important when exploring the use of Open Badges in the context of key competency development and recognition: *Key Competency Badges* might not be the only option!

One of the key features of Open Badges is the ability to verify whether the badge holder has really earned that badge. Within the Open Badge Infrastructure (OBI) it is not possible to claim a badge issued to someone else. So, while the claims usually made in a résumé can only be verified manually (call a previous employer, check that the diploma is not a fake), Open Badges can be verified online. The reader of an Open Badge can *trust* its content.

An Open Badge can be visualised as the representation of a trust relationship, a criterion- and evidence-based trust relationship:

Badge Issuer

Badge Earner



**Trust relationship:** *I (the issuer) trust you (the earner) to do this (criteria) based on this (evidence)*

When distributed over a network, Open Badges create a *Network of Trust*. It will even be a peer-to-peer trust network when everyone is able to issue and receive trust (Badges)<sup>1</sup>.

### Open Badges for or with the learners

One of the key questions regarding Open Badges is: who is the main beneficiary? Is it the institution or the teachers as it facilitates the tracking of learners' progress? Is it the future employer as it facilitates the selection and verification of claims made in *résumés*? Is it the learner who feels empowered?

One way to answer this question is to ask: who is the main designer of an Open Badge? Is it an external body, like a ministry of education or a professional body? Is it the institution or the teacher? Is it the learner? Or can we imagine a combination of different Open Badges, some designed by external bodies, others by teachers and some by learners?

### About Key Competencies

Following the 2006 Recommendation of the European Parliament and the Council of Europe on *key competences<sup>2</sup> for lifelong learning*, an annex was added in 2008: *Key Competences for Lifelong learning European Reference Framework* [1], a document eliciting 8 Key Competencies:

1. Communication in the mother tongue;
2. Communication in foreign languages;
3. Mathematical competence and basic competences in science and technology;
4. Digital competence;
5. Learning to learn;
6. Social and civic competences;
7. Sense of initiative and entrepreneurship;
8. Cultural awareness and expression;

The aim of the *framework*, as stated in this document, is to:

1. identify and define the key competences necessary for personal fulfilment, active citizenship, social cohesion and employability in a knowledge society;
2. support Member States' work in ensuring that by the end of initial education and training young people have developed the key competences to a level that equips them for adult life and which forms a basis for further learning and working life, and that adults are able to develop and update their key competences throughout their lives;
3. provide a European-level reference tool for policy-makers, education providers, employers, and learners themselves to facilitate national- and European-level efforts towards commonly agreed objectives;

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<sup>1</sup> Currently, one's need to use different pieces of software to issue, collect and display Open Badges. In the near future, everybody will be able to be a badge issuer, earner and consumer (the people who read the badges).

<sup>2</sup> *Competency vs competence*: for the International Labour Organisation (ILO), competence refers to ranges and levels of responsibility, like in "the domain of competence of this ministry is 'social affairs,'" while competency refers to a combination of skills, knowledge, attitudes and values (SKAV). It is unfortunate that a number of publications from the European Commission, including the *Key Competence Framework*, are not only confusing regarding the use of competence/competency but also skills and competencies. CIPD, the UK HR professional body (the largest Europe), also refers to 'competency' not 'competence'  
<http://www.cipd.co.uk/hr-resources/factsheets/competence-competency-frameworks.aspx>

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4. provide a framework for further action at Community level both within the Education and Training 2010 work programme and within the Community Education and Training Programmes.

The document from the European Commission does not provide any indication of the criteria one should use to define whether someone has acquired any of the defined key competencies. This job was left to the member states<sup>3</sup>.

Back in the early 2000s [Key Skills 2000, 3], i.e. before the European Commission document was published, the UK defined national standards for key skills in:

- Communication
- Application of Number
- Information Technology
- Working with Others
- Improving Own Learning and Performance
- Problem Solving

Each key skill was defined at 4 levels, each level having its own set of descriptors (c.f. extract on the right) with well defined criteria and evidence to produce in order to get the award.

National standard such as those would make it easy to design a series of Open Badges matching the different areas and levels of competencies.

In that context Open Badges would simply provide the means to make one's learning achievements more visible (online) and verifiable (trustworthy). A priori no transformative effect is expected: Open Badges are simply a new mean to do better something that was already done before.

In the absence of a national standard, criteria would remain to be defined, and this could put a lot of pressure on teachers to do a job they have not been trained<sup>4</sup> for. This could result in poorly defined criteria. Moreover, if every teacher, or every school starts defining their own criteria, one obvious danger is the fragmentation into a myriad of different Open Badges addressing the same competencies.

Poorly defined and fragmented criteria might be detrimental to the readability of Open Badges, if not their credibility altogether.

### Key Competencies + Open Badges = ?

How to combine Open Badges with key competencies? To what result? One way to approach this question is to recognise that key competencies are just one particular group of competencies, so what is good for the recognition of competencies in general, is likely to be just as good for key competencies. As there are al-

<sup>3</sup> Key Competence Network on School Education (KeyCoNet, <http://keyconet.eun.org/>), another European project dedicated to the study key competencies has produced a number of interesting documents [2] in relation to the implementation of key competency policies in Europe.

<sup>4</sup> designing good competency standards requires to perform functional analysis on a whole sector or domain taking into account all the activities, from the janitor to the top management. If not such holistic functional analysis is being performed, then it is very likely that the outcome will be a series of fragmented task analysis providing an impoverished understanding of the complexity of the real world.

## Part B

### YOU MUST:

Provide at least **one** example of meeting the standard for LP4.1, LP4.2 and LP4.3 (the example should include at least three targets). Overall, show you can use at least **two** different ways of learning to improve your performance.

#### LP4.1

Develop a strategy for improving your own learning and performance.

#### Evidence must show you can:

- 4.1.1 review your current capabilities and clearly identify what you hope to achieve in the future
- 4.1.2 research information on relevant learning opportunities and ways to improve your performance, to inform planning
- 4.1.3 set SMART targets and plan how these will be met, prioritising tasks and making a reasoned choice of methods and resources.

#### LP4.2

Monitor progress and adapt your strategy to improve your performance.

- 4.2.1 manage your time effectively and take responsibility for using different ways of learning to meet new demands
- 4.2.2 seek and actively use feedback and support from a variety of sources, to help meet your targets
- 4.2.3 reflect critically on your learning and adapt your strategy as necessary to improve your performance.

#### LP4.3

Evaluate your strategy and present the outcomes of your learning.

- 4.3.1 review the different ways you have learned and the extent to which you have met your targets
- 4.3.2 bring together and clearly illustrate what you have learned, organising evidence to support your purpose
- 4.3.3 assess the effectiveness of your strategy, including factors that affected the outcomes, and identify ways of further improving your own learning and performance.

### Improving own learning and performance: level 4

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ready plenty of Open Badges used to recognise a large range of competencies, then it is just a matter of extending current practice.

What is implied with this approach is that *Key Competency Open Badges* will need *key competency standards* similar to the UK *key skill 2000* introduced above. While it might seem unproblematic to define standards related to the mastery of mathematics and foreign languages, things might get more complicated with *digital competencies* and even more with the *sense of initiative and entrepreneurship* and *social and civic competencies*. For example, the French authorities decided to remove 'entrepreneurship' from the European key competency labelled "*sense of initiative and entrepreneurship*." The French version is "*autonomie et initiative*" [5] (autonomy and initiative).

Here is an extract of the descriptors related to the sense of *autonomy and initiative*:

Autonomy is the recognized ability of a student to establish principles and rules of conduct, choose their personal pathways **in compliance with social rules**<sup>5</sup> [highlighted by the author].

[...]

To assess students' sense of initiative, one should highlight their **actual motivation for school work**<sup>6</sup> [highlighted by the author].

So, the French understanding of *autonomy and initiative* is about *compliance* and *dedication to school work*. As students have no say in the curriculum, the organisation of the school year or even the layout of the classroom, it is normal that the standard elicits the need for *compliance*. At no place in this standard is there the slightest indication that institutional practices could be challenged, or even simply questioned. Challenging grades, tests, the use of multiple choice questions, exams or homework will undoubtedly be interpreted as a manifestation of a *lack of motivation for school work*.

### The Facebook incident

Imagine a pupil publishing on Facebook a video capturing the state of total chaos of his classroom who is then disciplined by the school board for this action. The teacher, who according to her colleagues should not be allowed to teach and is well known for letting disarray take over her classroom, is not disciplined.

Whatever one thinks about the value of disciplinary action, what is clear is the lesson taught to the pupils: if something goes wrong with a person of authority, do not report it as nothing will be done to correct it; you might even get disciplined for it. Even when they are wrong, adults are always right!

Anecdote collected from an Open Badges workshop

The anecdote reported in the box above demonstrates that, while a school should be the place for practising democracy, critical judgement, etc. what is really sought for is *compliance* and *subservience*.

There were alternatives to disciplining the culprits (the pupil who published the video, those who created the chaos and the teacher who cannot 'hold' her classroom). While it is probably true that this particular teacher has "special needs" the incident could have been an opportunity to open a dialogue and invite the pupils to be part of a solution — after all, if teachers have to adapt to learners with "special needs", why not the other way around? It could have been a great opportunity to empower the pupils and give them a chance to create a different situation, develop some empathy with a teacher who might be great in another context. Why not invite the pupils to create that context? But this would require a different mindset...

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<sup>5</sup> L'autonomie est la capacité reconnue à un élève de se fixer des principes et règles de conduite, choisir ses chemements personnels dans le respect des règles sociales en vigueur (Livret personnel de compétences Palier 3)

<sup>6</sup> Pour évaluer l'esprit d'initiative des élèves, il convient de mettre en valeur leur motivation effective pour les tâches scolaires (ibid)

## Do we need Key Competency Badges?

Another way to ask the question above is: if we want to use Open Badges to support the development and recognition of Key Competencies, does it mean that the title of the badges need to be related to any of the key competencies? For example, do we need to have a (series of) *social and civic Open Badge(s)*? Or should other badges be used to support and recognise the acquisition of those competencies?

One possible issue with Key Competency Badges is the need to provide a reference to a standard, even a local one, and standards tend to be... normative. The social norm explicit in the French key competency framework is the need for *compliance*. While it might sound unproblematic with mathematics and science, it could clearly be problematic when addressing issues related to social and civic competencies: is the standard designed to empower learners (giving them the power to act, including to challenge the educational institution) or to enforce compliance to keep the institution safe from any internal challenge?

So, if one does not agree with an institution using Open Badges like *cowpeople* (boys and girls!) use irons to brand cattle, one should refuse to bear any *mark of compliance*. *No conformist badge for me, please!*

## Do we need standards?

In any Open Badge, one of the metadata is relative to the *criteria* for its delivery. Criteria can be imposed (externally defined) or negotiated. They can also be self-defined or co-constructed.

Let's say that everybody defines his/her own criteria for *social and civic* competencies, then the collection/ aggregation of all the criteria generates a (series of) bottom-up standard(s). New social norms might be revealed through that process — the *Netiquette*, is one example of such a social norm which is the product of a community rather than imposed from an external authority.

But there is one more fundamental problem with standards, not with standards as such, but with those who think that standards are the alfa and omega of everything, letting standards be the proverbial tail wagging the dog.

Let's take the four capacities defined in the Scottish curriculum for excellence<sup>7</sup> [6]: "*to enable each child or young person to be a successful learner, a confident individual, a responsible citizen and an effective contributor.*" The first attribute listed for *successful learners* is *enthusiasm for learning*. Performing a search for 'enthousiasme' in the French key competency standard leads to a fail. The second attribute, *motivation for learning*, as we have seen earlier is also absent from the French standard which is solely interested in "actual motivation for school work," not learning for the sake of learning.

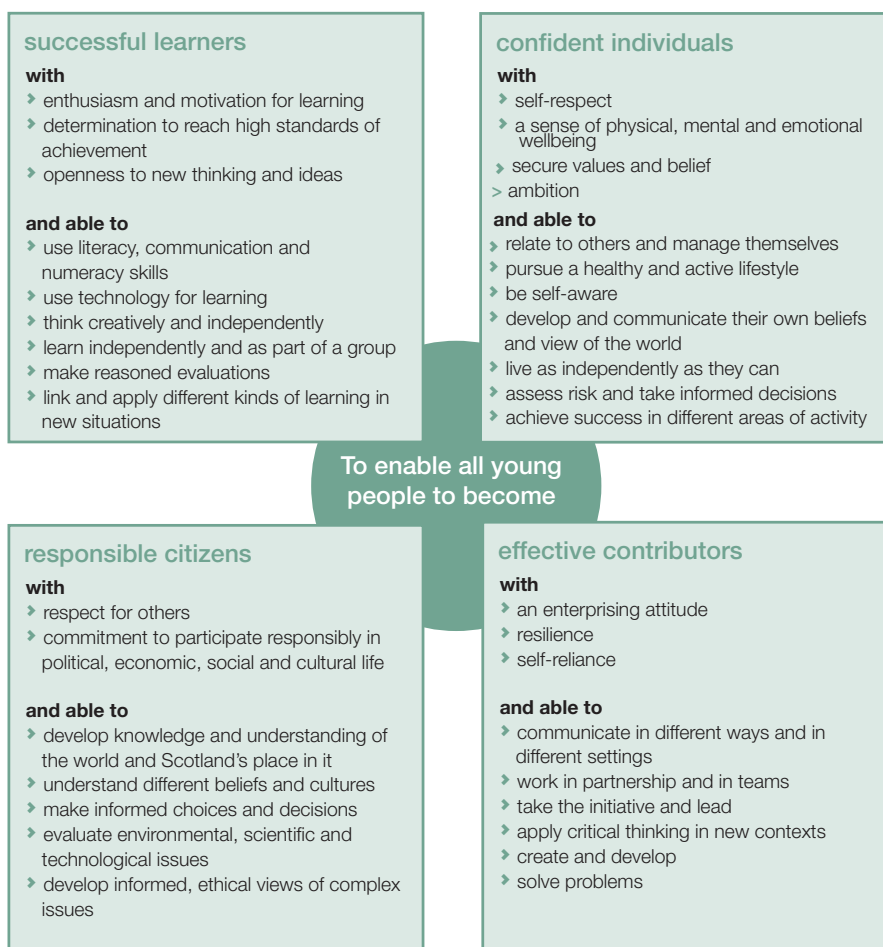
The second attribute for *responsible citizen*, is *commitment to participate responsibly in political, economic, social and cultural life*. How is it possible to demonstrate the commitment *to participate responsibly in political life* if all what pupils have to demonstrate as stipulated in the French standards is: "The student is interested in general news, whether political, economic, cultural, scientific", "Know the foundations of political democracy" and "List the main actors in the political and social life" [5 pp. 21 & 25 underlined by the author]. How showing *interest*, *knowing* and *listing* can provide even the slightest evidence of *commitment to participate responsibly in the political life*? That should not be a problem as the *commitment to participate responsibly in political, economic, social and cultural life* is not part of the French standard, which only commitment it is solely interested in is the *commitment to school work*. Everyone knows that there is a large gap between being *interested* and *committed*<sup>8</sup>: French pupils are solely required to be *interested*, the Scottish to be *committed*.

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<sup>7</sup> It is in face meta-curriculum as the goal is to have it defined with all the stakeholders at local and regional levels, not imposed from a central authority.

<sup>8</sup> Think of an English breakfast: the chicken is interested, the pork is committed.

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### Scottish Curriculum for Excellence

While the definition of the Scottish Curriculum for Excellence starts from high level goals to which are related a number of values and attributes out of which normative definitions might (or not) be elicited, the French key competency standard seems solely focused on normative definitions in order to obtain the desired level of compliance, and subservience, even if *compliance* and *subservience* are in contradiction with the goals of a modern, open and democratic society. The subtext in centrally defining norms relative to *autonomy and entrepreneurship*, is that it is not possible to trust teachers, learners and other stakeholders of the educational system to define norms that are aligned with shared values.

The Scottish Curriculum For Excellence, on the other hand, is primarily focused on values and it believes that the people who will implement the curriculum are confident individuals, responsible citizens and effective contributors. The implementation of the (meta)curriculum is the exercise during which the old standards will be confirmed, transformed or dismissed and new standards will emerge. The implementation of the curriculum is a learning exercise, an exercise that never ends.

### Alternatives for Key Competency Open Badges

While an agreement on standards for the delivery of Open Badges for *Communication in the mother tongue* should not be a problem, an agreement on digital competency, social and civic competency, sense of initiative and entrepreneurship and cultural awareness and expression might be.

While normative badges should not be excluded (it is probably better if there is a norm defining what is a competent doctor — and that this norm includes the demonstration of continuing professional development!), normative badges could also weaken the ability to innovate, be creative and take risks: "*if all I have to do to get this badge is described here, why bother doing more?*" Of course, there are domains where creativity is limited or not welcome (rare are the accountants that would claim a *creative accounting badge*, unless looking for a job in a rogue business!)

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The main risk with normative badges is to enforce compliance — which is not seen as a risk in a society where compliance and subservience are expected. For example, the pupil at the origin of *The Facebook Incident*, instead of being disciplined could have been awarded a *Whistleblower* badge. Had he had a chance to work with his classmates and his *teacher with special needs* towards a solution for working together, they could have decided to create a special badge celebrating a remarkable **achievement**.

### The power of *Achievement Badges*

Achievement Badges are badges delivered after having achieved something. For example the pupils who have organised an exhibition, or run a science project, receive a badge to celebrate their achievement. The badge does not say anything about the competencies involved (each contributor might have brought in a different set of competencies), it simply states: *here is what we have achieved together!*

Achievements badges, contrary to key competency badges, do not have to be not normative. Created along the learning pathway, they can be designed *with* the learners rather than *for* them. As they can be created post-facto, they do not bear the stigma associated with the use of Open Badges as *extrinsic motivators* which, as established through numerous researches [7][8], has deleterious effects on *intrinsic motivation*, i.e. the desire to learn, to be a successful learner, a confident individual, a responsible citizen and an effective contributor. Using Open Badges (as extrinsic motivators) to motivate learners is the most wide spread infantile illness among learning professionals!

The beauty of *achievement badges* is that they capture the context of the achievement in the criteria: where, how, what resources, etc.. And the collection of achievement badges creates a fabric of interwoven threads of narratives: one's own story is interconnected to others' stories through achievement badges.

### Achievement Badges for Key Competency Badges?

Could we imagine an Open Badge ecosystem where learners and teachers instead of being focused on *normative Key Competency Badges*, would be focused on *achievement badges*, using those as a means for awarding Key Competency Badges? Another question is: if one already has plenty of achievement badges demonstrating the acquisition of key competencies, should one care about gaining one or more *key competency badges* on top of those achievement badges? If the answer is yes, who would have the authority to deliver them?

As discussed earlier, one problem with a central authority delivering *key competency badges* is the risk of enforcing compliance and mediocrity (do what is necessary to get it, not more). Conversely, the problem when there is no central authority, or no shared standard, is the fragmentation: if everyone is defining their own criteria, a key competency such as "entrepreneurship" would have many different descriptors, depending on who is awarding the badge.

One way to escape from this dichotomy would be to establish a conversational system, where existing definitions would be public and everyone would be able to make reference to them or derive their own from existing ones. Let's say that there is somewhere a definition for *learning to learn*, but that someone believes that *learning to learn* should be really called *learning to teach* (or *coach*), as pupils should not only 'learn' in the way described in the standard, but 'teach/coach' other pupils, that the definition of a *successful learner* is someone who cares for other learners and understands that it is his/her social responsibility to help their fellow learners (and teachers! to make reference to *The Facebook Incident*).

To the *conformist*, the outcome of a conversational system might look like a mess, to the innovator, as a source of inspiration. One argument against the lack of centralised standards could be that employers will not make head or tail from the myriad of *Entrepreneurship Open Badges*. But it could be just the opposite: the attention and care brought into crafting a very unique "Entrepreneurship Badge" is not different from the attention and care brought into crafting of a very individual ePortfolio. What will be of interest to the employer, or the client for the self-employed, is not that all the criteria of the standards have been met, but how the collection of achievement badges convey the richness of the personal experience: *I'm not really interested in whether or not you followed the highway code, tell me rather your experience during your trip!*

It is from the practice that the standards should emerge, and not the other way around, unless one's belief is that it is the tail that should wag the dog. Standards, especially key competency standards, when they exist should not be carved in stone. They should be fluid.

## Conclusions (provisional): The rise of the reflective rebel

For those who are worried about the compliance and subservience embedded in some of the *key competency standards*, here is a possible antidote: the rise of the “reflective rebel<sup>9</sup>.”

As Alfie Kohn puts it:

The bottom line is that kids learn to make good decisions by making decisions, not by following directions. If we want them to take responsibility for making the world a better place, then we need to *give* them responsibilities. That means dialling back our control, whether of the flagrant or the subtle variety.

A reflective rebel is someone who is not afraid to ask *why?* and say *no!*

We will not know whether the pupil at the origin of *The Facebook Incident*, was a wannabe rebel, or a whistleblower. He might just have been a bully looking for immediate gratification gained in humiliating a teacher. That we can't tell. We will not know either if he did reflect on, or care about, the consequences of publicly humiliating a teacher.

If we do not know it is simply because the school board did not care. While the problem with the teacher was public knowledge, the school authorities, for whatever reasons, refused to face it. Its only focus was to keep order, even at the cost of punishing one of the many victims (of the teacher's lack of competencies), the one who made public what was supposed to be a little dirty secret (even if it was not a secret at all).

Had the school board reflected on the situation, it would have been a great opportunity to demonstrate a number of competencies and elicit those to be acquired to become successful learners, confident individuals, responsible citizens and effective contributors:

1. Communication in the mother tongue: *the analysis of the video could have provided excellent material to reflect on the ability to convey a message, something that the teacher obviously had problems with.*
2. Communication in foreign languages: *well, slang is not exactly a foreign language... but the video might have demonstrated pupils' high level of mastery, and teacher's need to improve her communication skills with other cultures.*
3. Mathematical competence and basic competences in science and technology: *the pupil could have done some research into the causes for poor teacher behaviour, why pupils were willing to take advantage of a weakness, formulated an hypothesis and possible solutions asking feedback from peers and other teachers.*
4. Digital competence: *the video on Facebook is evidence of his ability to use video and social media. The inability to hide if from the authorities demonstrates a need to develop competencies related to privacy (self and others).*
5. Learning to learn: *well, in that case, it is the school board who has demonstrated its inability to learn from an unexpected situation. Instead of exploiting the situation to create a collective learning opportunity, the only response was to punish one of the victims and show leniency with the failing authority.*
6. Social and civic competences: *there is obviously a need for the pupils to develop them as bullying and abusing a weak teacher are not exactly something they should be proud of. The school board is no stranger to the need to develop their civic competencies, as being strong with the weak (the pupil) and weak with the strong (the authority) is not exactly the model of justice of an open and democratic society.*
7. Sense of initiative and entrepreneurship: *the pupil definitely demonstrated a sense of initiative and risk taking. It is unfortunate that he didn't pursue his efforts to challenge the disciplinary action and behave like a proper reflective rebel. On the other hand the members of the school board did not show any sense of initiative or creativity: the only response provided was to insure compliance and subservience.*
8. Cultural awareness and expression: *having not seen the edited video, it is difficult to comment on that point.*

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<sup>9</sup> It is the title of the last chapter of *The Myth of the Spoiled Child: Challenging the Conventional Wisdom About Children and Parenting*, by Alfie Kohn [7]



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Had the pupil been a *reflective rebel*, he would have been able to provide evidence from the 8 key competencies defined in the European framework. He would have been entitled to receive the *reflective rebel Open Badge!* It is unfortunate that the school board did not use this opportunity to support him in that direction, nor to itself reflect on its own values and practices.

If our children have to find innovative solutions to solve the problems we have created, who should we trust more: the conformist looking for the approval of the authority or the reflective rebel? According to *The Facebook Incident* and the reading of some *key competency frameworks* it is more likely that what institutions are required is the grooming conformists rather than reflective rebels.

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