Apprentices’ motivation for various aspects of their training during the first year of their vocational education program

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At the age of 15, at the end of compulsory education, 70% of the Swiss students enter vocational education programs. Vocational education is traditionally organised on a dual basis, in which most of the training is done at the workplace (3 to 4 days a week depending on the chosen profession) and only one, sometimes two days of each week are spent at school. At the school, two kinds of topics are studied: while all the apprentices attend general education classes such as languages, maths or humanities, for instance, other classes are more specific to the profession they have chosen, accounting, management or typewriting, for instance for those who have opted for a commercial or office related job, mechanic, electronic or metalwork for those who go for a more technical kind of job. The first type of classes are called “general”, the second “professional”.

In most types of professions, two different programs can be chosen from. The first one, which generally lasts for 3 or 4 years, puts a clear emphasis on the acquisition of practical know-how in the profession and only marginally cares about the general education of the participants. It ends up with a “Federal certificate of capacitation” (FCC). From 1993 up, a second route towards professional qualification has been opened in Switzerland; this new route is of the same length as the other, is also based on the same principle of dual education (at the workplace and at school) but it puts a stronger emphasis on the study of general subject matters. This curriculum ends up with both the certificate of capacitation plus a “Vocational baccalaureate” (VB), which is needed to proceed to superior vocational education. Despite this advantage, only less than 9% of the students considering vocational education enter this “new” program.
The present study analyses apprentices’ motivation to learn at the workplace and at school, in these two types of programs in order to understand why so many Swiss youngsters avoid a program which seems so natural in most of the European countries.

In line with the recent trend in the study of motivation, which focuses on the impact of context on motivation to learn (see Turner & Meyer, 1999 or Volet & Järvela, 2001), we consider these two different programs as well as the kind of settings constituted by the workplace and the school as different types of contexts influencing subjects’ willingness and readiness to work and study for their future profession.

Based on Bronfenbrenner’s (1986) ecological theory of the family as a context for human development, our model of the influence of the learning context on a learner’s motivation postulates that different types of context surround each learning activity and that all these types of context stay in a different relationship with regard to the learning act (Gurtner, Monnard & Genoud, 2001).

In his analysis of development and of the various influences exerted by a family on a child’s development, Bronfenbrenner distinguishes factors with a very close and direct influence from factors affecting the child’s development more indirectly. The personality of the mother, for instance, has a direct impact on the child’s development, while the satisfaction experienced by the mother in her relationship to her husband or in her professional life, influences the child’s development by affecting the mother’s happiness and thus the warmth, smiles and positive emotions she will carry over in the relation to her child. Bronfenbrenner labels “micro-systems” the systems directly related to the child, “meso-systems” the systems with close but yet indirect influence, such as the mother-father relationship and “exo-systems”, such systems that are so external to the child that she no longer can affect the system, but remains indirectly influenced by it, such as maternal employment or parental support network.

In our work (Gurtner et al. 2001), we identify in a similar manner different types of context surrounding each learning act. With respect to learning at school, for instance, the type of lesson (math, humanities or language learning, for instance, the kind of activity completed, individual or group work, compose micro-level contexts. Many researchers have shown how these conditions can improve or hinder learning as well as motivation for learning (Ames, 1981; Farmer et al., 1991).
Teacher attitudes or practices, classroom climate or norms build a second level of context which impact on students motivation and learning are also well documented. Wentzel (1997), for instance, provides empirical evidence that perceived caring from teachers can predict current motivation even when performance level or control beliefs are taken into account. Based on these data, we consider classroom climate and teachers’ attitudes as building a meso-level context for students' motivation.

Sections, programs or schools build exo-systems with a more indirect and lighter impact on learners’ motivation. Passing from middle to high-school, for instance, is generally associated with a drop in motivation (Midgley, 1993); in the same way, students attending a general education section are more motivated than those from technical sections (Lens & Decruyenaere, 1991).

In the present study dedicated to vocational education, we propose to view the specificities of the setting (workplace or school) as micro-level factors with direct impact on apprentices’ motivation to learn. We anticipate their motivation to be higher in the workplace than at school and higher when studying professional subjects than in more general classes.

The quality of the relations with the supervisor and the teachers as well as the atmosphere and social climate at the workplace, constitute elements of what we call by analogy the meso-level context. The two different programs (FCC or VB) are contributor of the exo-level context.

Motivation is conceived as a componential entity involving self-appraisals, values and expectancy beliefs (Boekarts, 1999; Pintrich, 2000). Subjects’ judgments regarding school or workplace attraction, their learning intentions in the various contexts, the perceived utility they attribute to what is learned at school and at the workplace, their self-efficacy beliefs, the anxiety they feel within the learning situations, as well as the strength of the their motivational goals.

Methodology
Subjects in this study are 313 apprentices at the beginning of their second year of training.

About half of the sample (158) are engaged in the “Federal certificate of capacitation” (FCC) program and the other half (155) have chosen the “Vocational baccalaureate” (VB) program. In each group, a slight majority of the apprentices is heading towards commercial professions (81 in the FCC and 84 in the VB) while 74 apprentices in both groups are preparing themselves for more technical professional domains. With respect to gender, half the subjects from the VB program are girls (78) and half are boys (77). In the FCC program, we have a majority of boys (99 to 59). This is basically due to the weak number of girls choosing technical professions, especially in FCC bound programs.

Data come from a self-perception questionnaire completed by the subjects at the end of their first year of training. In the questionnaire, subjects are faced with statements towards which they are asked to take position on a 7 points Likert scale, with 1 to be ticked if one fully disagrees and 7 standing for a full agreement.

Results

Micro-level contextual influences

As expected, the kind of work done at the workplace is seen as being the most attractive and producing the higher self-efficacy beliefs; it also raises the higher learning intentions among the three micro-level contexts. Finally, it is related with both high performance and high learning goals. Professional courses, however are attributed higher utility for one’s professional growth than the work done at the workplace; they tend therefore to elicit higher anxiety to be good at them. Unexpectedly, the professional classes also lead to higher tendency to develop work avoidance strategies. General education courses were mainly considered as the less motivating ones, except with respect to attraction and learning goal.

Meso level context

Subjects were asked to appreciate the social climate at their workplace only; the number and the diversity of the teachers intervening at school would have made the
collection of their judgments on the school climate too ambiguous; three aspects related to the social climate at the workplace were tested, namely the global satisfaction towards the workplace, the relationship with the supervisor and the social climate among the employees. Regression analysis show that all three aspects do have a low but significant impact on all the motivational variables within the micro-context of the workplace (with adjusted $R^2$ between .418 and .063) but also on 5 of the 8 motivational variables within the professional course context (with much lower adjusted $R^2$, ranging from .125 to .019).

The impact of the social climate at the workplace on motivation within the general education courses is only significant for learning intentions and the learning goal, attesting that the quality of the climate at the workplace does not globally affect motivation to learn; its impact remains limited to those contexts that can easily be related with the profession.

**Exo-level contextual factors and their impact on learning motivation**

Across contexts, apprentices heading for a baccalaureate have slightly higher self-efficacy beliefs than those in the FCC program. Despite what could have been expected however, the difference is only significant within the workplace context ($p=.05$) and marginally significant for the professional courses ($p=.057$). The fact that the difference is not significant for the general education courses) could indicate that apprentices who are only one year out of school still compare themselves regarding school capacities with their peers who were better at school and went on in high school. This interpretation is compatible with the higher level of anxiety revealed by FCC students with regard to the three contexts, attesting that these students have lost quite a bit of confidence towards their own learning capacities.

Perceived utility and attractivity of general courses is clearer to those who go for a baccalaureate and can envision to enter superior education in a near future (VB) than to FCC students ($F=7.57$, $p=.006$ for perceived utility and $F=4.68$, $p=.03$). This however does not lead to any differences in their learning intentions in any of the three micro-level contexts nor in any of their motivational orientations, attesting for the distant impact of exo-level contexts on an apprentice’s motivation to learn.
Conclusion

Being motivated to learn is not to be conceived primarily as a personality related or individual characteristic. Our results, as those of many researchers now, show that motivation is importantly influenced by situational variables. As Boekaerts (2001) puts it, motivation is highly context sensitive, constant within a given context but possibly very different among the same person from one context to another. But while micro-level contexts (such as being at the workplace or sitting at school) have a clearcut influence on the motivation of the learner, more distant contextual factors, such as the social climate set up by the teachers and the colleagues at work or the type of program one is involved in have a less direct and weaker impact on students’ readiness to learn, impact which seems to remain restricted to given micro-level contexts.

Consequently, the dual system, on which vocational education is build up in Switzerland, clearly boosts motivation to learn by bringing the apprentice on the very location where the profession is exerted from the very beginning of his or her education. But the attraction of the workplace is not enough to effect his or her motivation to learn at school. School teachers, and especially teachers of general education courses in the vocational education system, still have to detect and activate situation specific motivators if they expect to experience within their own teaching context the same high learning motivation as the one observed in the workplace context.

References


