

## **Research about verbal interactions between male or female students and trainers of both genders in adult training in higher education.**

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### **Summary :**

Backing up our work with previous studies of elementary and secondary schools which have shown different and unconscious behaviour from male or female teachers as well as expectations differentiated according to a pupil's gender, we became interested in training staff practices with adults and we have tried to find out if these phenomenas also exist in higher education.

To our knowledge, in France, only a few studies have treated teachers' and pupils' practices related to the gender topic in higher education. Like in elementary and secondary schools, we think that it is essential to develop the consideration of coeducation and the differences between both genders in higher education. But also develop a practice time analysis about learning with the gender topic, for trainers in higher education and future trainers and in particular for training teachers.

This paper intends to present our study results about the influence of gender in interactions between trainers and students in higher education in France (frequency and type of interventions). We postulate that the training staff, not being trained on the subject of gender in adult learning, develop the same behaviour as those observed in primary and secondary school male and female teachers.

Our research is based on sixteen series of observations held at University Montpellier in France, during the period of 2008-2009 and 2009-2010, with a sample of students (39 women and 19 men) at the University Montpellier 3, as well as seven trainers (three male and four female).

### **Short Bio :**

**Christine Fontanini** is Professor Education Sciences in the University of Montpellier in France. She's responsible for courses on gender in the 2<sup>nd</sup> year Masters's Degree program *Counselling, Training, Education* and for a Diploma of University *Consulting Equality Women-Men*.

Her researches concern essentially the educational and vocational guidance of the girls and the boys in the higher education in France and the hidden curriculum in the higher education.

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## **Introduction :**

This paper presents our study results about the role of gender in verbal interactions between students and trainers (of both genders) in higher education in France.

In France, there are a lot of studies regarding the interactions in the classroom according to gender in primary and secondary schools, but little concerning higher education (Ollagnier, 2010). This is the reason why we became interested in training staff practices with adults and we made a study by observing verbal interactions according to gender in the classroom with the trainers and students at the University of Montpellier in France.

Educational sociologists and psychologists have highlighted the existence of a “hidden curriculum” in schools (Durand-Delvigne & Duru-Bellat, 1998; Jarlégan, 1999; Zaidman, 1996), a basis of gender-based differences. Daily classroom activities, small gestures and even testing are all influenced by the pupils’ gender. By example, Jarlégan’s study (1999) on interactions during maths class has shown that boys received more individual interactions, more information, open questions, and feedback and girls received less cognitive remarks (answers). In general, and not only in maths, it seems that teachers have more interaction with boys (Mosconi, 2004). Consequently, boys learn to speak out at school, assert themselves, test authority and girls learn to restrict their contact with others and to be less noticeable. Girls and boys develop different relationships with knowledge, associate attitudes and abilities with gender and more importantly acquire a gender-based perception of their own abilities.

We started from this established fact from previous studies of different teaching practices according to pupil gender in primary and secondary schools in France. That is to say that unconsciously and through the influence of gender stereotypes, teachers develop expectations towards girls and boys that are expressed in their teaching attitudes and interactions in the classroom (Duru-Bellat, 1998; Baudoux and Noircent, 1995, Jarlégan, 1999). So we have tried to find out if these phenomena exists also with adults and in higher education.

**We have raised this question:**

**What is the influence of gender in interactions between trainers and students of both genders in higher education in France (frequency and type of interventions)?**

We postulate that the training staff, not being trained on the subject of gender in adult learning, develop the same behaviour as those observed in primary and secondary school male and female teachers

We feel it is important for trainers in higher education as well as for future trainers to show the importance of the gender variable in adult learning, in order to better adapt training practices to the concerned learners.

### Methodology :

Our sample is made up of two coed groups of students adults at the University of Montpellier in France.

### Students's presentation

Periods	Trainings	Men	Women	Total
2008-2009	University degree <i>Preparation in Trainer functions</i>	9	11	20
	2 <sup>nd</sup> year Masters's Degree program <i>Counselling, Training, Education</i>	3	16	19
2009-2010	2 <sup>nd</sup> year Masters's Degree program <i>Counselling, Training, Education</i>	7	12	19
<b>Total</b>		<b>19</b>	<b>39</b>	<b>58</b>
<b>%Men&amp;Women</b>		<b>33 %</b>	<b>67 %</b>	<b>100 %</b>

The first group, a second-year Master's Degree program, "Counseling, Training, Education", is composed of twenty eight women and ten men aged from twenty-five to fifty (some of students have chosen the teacher training). The second student group consists of trainees studying in order to get a University degree ("Preparation in Trainer Functions") which will allow them to become adult trainers. This second group is made up of eleven women and nine men aged from twenty-five to fifty-five.

We are aware that our sample is not completely representative of a coed class, the two groups of students in the Master's have more women (67 %) than men (33 %).

Thus a minute analysis has allowed us to reveal some distinct elements and characteristics of gender-based verbal interactions between the training staff and the adults in training.

### Trainers's and sessions'time presentation

Periods	Number Men	Number Women	Time/session	Total time
2008-2009	2		5 x 3h + 1 x 1h30	16h30
		1	5 x 3h	15h
2009 – 2010	1		1x1h01	1h01
		2	4x1h01	4h04
<b>Total</b>	<b>3</b>	<b>4</b>	<b>16 sessions 36h35</b>	<b>Men : 17h31 Women : 19h04</b>

Our sample is made up of three male trainers and four female trainers.

We have filmed the sessions in the classroom and we have created an observations scale from an exploratory study results about the same subject of this research (Fontanini & Avenel, 2009). So, we have created categories in order to regroup the communications observed between the training staff and the students (for example exchanges, questions...).

Our aim is to reveal the different forms of verbal interactions according to gender between the trainers and the adult student group.

### **Results :**

#### **The totality of trainer's communications (gender not considered) towards students (gender not considered).**

Type of communications	Communication towards students (individually)	Part of communication towards students	Communication towards the whole group	Part of communication towards the whole group	Total
Trainers	668	45 %	809	55 %	1477

We have recorded more 1477 contacts from seven trainers.

Trainers have more group interactions: the majority (55 %) of these are directed towards the hole group.

#### **The distribution of male and female trainers individual communications towards students (gender not considered)**

Gender	Communication towards students	Part of total communications
Female trainers	417	48 %
Male trainers	251	42 %
Total	668	100 %

We note that male and female trainers communicate almost as much towards students. We observe also that the time of monologues to the group is the same from male and female trainers. The time of monologue for the female trainers represents 23.7% of the total time sessions. For the male trainers, it represents 22.9 %.

**The distribution of male and female trainers individual communications towards students (both gender)**

Gender	Communication towards women		Communication towards men		Total
	number	%	number	%	
Female trainers	222	53 %	195	47 %	<b>417</b>
Male trainers	168	67 %	83	33 %	<b>251</b>
<b>Total</b>	<b>390</b>	<b>58 %</b>	<b>278</b>	<b>42 %</b>	<b>668</b>

If we observe the distribution: the majority, or almost 58 %, of individual communications is directed towards female students, versus 42 % towards male students. For our study, the training staff communicates more with female students, specially the male trainers. But we do not have to forget that the female students (66 %) are more numerous than male students (33%) in our sample. That means that the trainers, specially female trainers, have more individual communications with male students as female students, according to the representation of the men and the women of our sample. For the male trainers, we can note that the part of their individual communications with students are more proportionately with the part of male and female students.

Trainers communications has been categorized as the following:

- Exchanges (1)
- asking the students questions (2)
- spontaneous contact with a student (3)
- when the trainer allows the students to speak (4)
- a request for the student to develop their answer (5)
- a request for a student to give an answer to the group (6)

**Categories of trainers communications**

Gender	(1)	(2)	(3)	(4)	(5)	(6)	Other	Total	Part of total
Female trainers	268 (60%)	44 (75%)	43 (88%)	35 (82%)	8 (57%)	8 (100%)	11 (52%)	417	65%
Male trainers	180 (40%)	15 (25%)	6 (12%)	8 (18%)	6 (43%)	0	10 (48%)	225	35%
<b>Total</b>	<b>448 (100%)</b>	<b>59 (100%)</b>	<b>49 (100%)</b>	<b>43 (100%)</b>	<b>14 (100%)</b>	<b>8 (100%)</b>	<b>21 (100%)</b>	<b>642</b>	<b>100%</b>

When observing each category more closely, the percentage of female trainer contact is always greater.

**The distribution of trainers communications according to the category,  
student gender and trainer gender.**

Categories of trainer communication	Communications with women	Communications with men	Total	Part of communications with women
<b>Female trainers</b>				
(1)	138	110	248	56 %
(2)	17	27	44	39 %
(3)	18	25	43	42 %
(4)	18	17	35	52 %
(5)	4	4	8	50 %
(6)	4	4	8	50 %
<b>Other</b>	4	7	11	36 %
<b>Total</b>	<b>203</b>	<b>194</b>	<b>397</b>	<b>51 %</b>
<b>Male trainers</b>				
(1)	148	66	214	69 %
(2)	15	2	17	88 %
(3)	4	2	6	66 %
(4)	3	5	8	37 %
(5)	1	5	6	16 %
(6)	0	0	0	0 %
<b>Other</b>	5	5	10	50 %
<b>Total</b>	<b>176</b>	<b>85</b>	<b>261</b>	<b>67 %</b>

- (1) Exchanges;
- (2) asking the students questions;
- (3) spontaneous contact with a student;
- (4) when the trainer allows the students to speak;
- (5) a request for the student to develop their answer;
- (6) a request for a student to give an answer to the group

We will then observe verbal interactions according to trainer and student gender.

Concerning the female trainers, they ask female students fewer questions (2) but interact a little more with them (56 % of these interactions are directed towards women). We have observed an equal distribution for “a request for the student to develop their answer” and “a request for a student to give an answer to the group”. The female trainers address women and men equally in these two situations and when they allow the students to speak.

Regarding the male trainers, the same applies: the majority of their interactions are with women, except in the category “when the trainer allows the students to speak” and “a request for the student to develop their answer” in which 70% are directed towards men.

The bias of our research, being the high percentage of women in our sample (67 %), takes on a special meaning. Indeed, we should notice that the female trainers interact with at least 66% of women in every category. Now, it's never the case.

On the other hand, the male trainers have more interactions with the women proportionally in their representativeness in the sample for the first two categories.

Men are the minority and despite this, the verbal interactions between training staff and men are very significant: the male trainers interact more with them (80%) when requesting a more developed answer; and the female trainers also ask men more questions (roughly 60%).

According to our study, men in the sample are more often the subject of cognitive interactions with the training staff. These interactions lead to the development of the expression of their ideas, their difficulties, and allow for the necessary feedback in acquiring new skills and developing autonomy.

Based on this point, our results agree with our exploratory study results about the same subject of this research with only one female trainer and two male trainers.

### **Conclusion and further work**

To conclude this paper, we will summarize our results in two points:

- Proportionally in their representativeness in the sample, quantitatively, the training staff interacts less with women. However, qualitatively, trainers of both genders have more interaction with men, which encourages the feedback necessary for learners.
- Trainers encourage more cognitive interactions with men, both male and female trainers recreate some practices observed in primary and secondary schools. It is possible to assume, even when trainers in higher education are aware of gender stereotypes, they continue to play a role in their verbal interactions with adults and in their expectations of men.

Our first aim is to reveal quantitative information about verbal interactions in the classroom according to gender with an adult. That's why we choose not to go further into the analysis of the roles of psychological and ethnic factors. It is obvious that the verbal interactions that we have observed depend on the educational style of the trainers and the type of class. However, it appears imperative to increase future adult trainers' awareness of these gender stereotypes and phenomena of different expectations.

As in the primary and secondary schools, the coeducation in adults' training does not generate an equality between men and women. If there isn't the same "treatment" from their female and male trainers, there can't be equality between male and female pupils and also between students. So with this study we want to show the importance of gender teacher training in primary schools as well as in adult training in higher education.

We've strived to point the importance at the gender variable in adult learning, and the existing differences between male and female students by observing their verbal interactions with the training staff. Coeducation does not necessarily result in equality between group members; according to Vouillot (2001), concerning coeducation in schools, "*We must move from an unthought-out coeducation to a thought-out coeducation in order to guarantee each student every opportunity to develop his/her potentialities according to his/her individual aspirations and not according to the dividing standard of gender-based skills*".

As for primary schools, we think that it is essential to develop the consideration of coeducation and the differences between both genders in higher education. But also develop a practice time analysis about learning with the gender topic, for trainers in higher education and future trainers and in particular for training teachers. The stakes are great: the development of the potential of adult female and male learners, independent of gender stereotypes, and even more importantly the professional insertion of these men and women depend on the trainers' practices.

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