

Research Article

## Exploring Beninese Preservice Technical Teachers' Perspectives on Their Motivation to Become Teachers

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**Abstract:** This study examines the creation of motivational profiles that can help obtain a better understanding of preservice technical teachers. Cluster analysis has been used as the data collection method. The study involved 377 participants. The results obtained show four distinctive types of motivational profiles among preservice teachers: those without vocation, those with a naive motivation, those with non-school vocation and those with school vocation. The results indicate that efforts need to be concentrated on stimulating preservice teachers or prospective teachers on the specific variables that are relevant according to their profile and to ensure that the most motivated maintain the necessary drive to take advantage of the training opportunities that they are offered.

**Keywords:** Preservice Technical Teachers' Perspectives, Student-Teachers, Motivation Characteristics, Teacher Training School, Benin Context.

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## PROBLEM AND PURPOSE

There are many motivational characteristics that student-teachers could be associated with school vocation (Bilbao & Fraile, 2015; Bruinsma & Jansen, 2010; García Garduño, 2010; Jungert, Alm, & Thornberg, 2014; Said-Hung, Gratacós & Cobos, 2017). However, not all of them generate consensus of being a sine qua non condition to be a good student-teacher or teacher trainee, even when these are clearly desirable. For example, for some it would be desirable for intrinsic motives to predominate in future teachers, but why couldn't a student with extrinsic motives also become a good student-teacher and, in the future, a good teacher? Or in the face of altruistic motives, why does this type of motive necessarily prevail? Can't a student be professionally competent even though his altruistic motives are not that high?

Therefore, being motivated is not sufficient to become a good teacher. It is also required to have training opportunities and at the same time to have the personal and academic capacities to take advantage of them (Viau, 2009). These three elements (motivation, opportunities and capacities) are fundamental. The present study focuses on the first of these aspects, that is, on motivation.

## LITERATURE

Of all the motivational variables linked in one way or another to teacher motivation, there is a group of them that concentrate the consensus on the motivational characteristics that every good student-teacher should have. These variables, which can be termed fundamental, constitute a necessary condition, although not sufficient to be a good student-teacher and allow to expect a good teacher in the future. There are others, that although not everyone would agree with their fundamental character, they do recognize a clear benefit in the training of future teachers. These can be considered as the second group of variables to be called the desirable variables.

As for fundamental variables, five motivational variables were identified: motivation to be a teacher, motivation to teach, commitment to academic tasks (engagement), intellectual curiosity, and finally, the expectation of remaining in the school system and pursuing a teaching career. On the other hand, altruistic motives, types of motives to persist in the career (intrinsic motivation, extrinsic motivation and amotivation), motivation for academic reading and motivation for professional training were identified as complementary or desirable variables.

- **Core variables**

**The core or fundamental variables can be detailed as follows:**

**1. Motivation for being a teacher.**

One of the most traditional ways of approaching teaching motivation is that linked to the intensity of the desire to become a teacher (Canrinus & Fokkens -Bruinsma, 2014). Usually, this involves the desire to become a teacher, which is certified by obtaining a university level degree or a professional title awarded by a teacher training school, as is the case in several countries. Benin is no exception. Although this variable could be considered as a compulsory requirement among student-teachers, the literature evidences the fact that more and more students who enter and finish with the teaching degrees or pedagogical degrees do not necessarily want to practice as classroom teachers (Arredondo & Apablaza, 2013; Mizala, 2011). In such a context, the reasons that make them persist in their studies are varied: access to university, improvement of social and economic status, going to teacher training when the score was not obtained to apply for another desired career, among others (Avenidaño Bravo & González Urrutia, 2012; García Garduño, 2007).

**Motivation For Teaching.**

A second motivational variable identified as fundamental during the training of future teachers is that the student-teacher is motivated to teach. The profession of teacher is based on the mediation of the teacher so that their students can acquire the knowledge of the school curriculum (Cho & Shim, 2013; Richardson & Watt, 2014). Thus, if the desire to be a teacher is combined with the pleasure of teaching, teacher candidates are on the right track.

**Commitment to academic tasks.**

The two previous variables are not sufficient always. Indeed, the student-teachers to whom the communities aspire and who they want to be a good teacher, must commit to their training process, dedicate time and effort to appropriate the training content of their profession. Without this, they are student-teachers who believe that the desire to be a teacher is enough to consider themselves a suitable candidate for teaching.

**Intellectual curiosity.**

A fourth motivational variable, in which there would be consensus as a fundamental variable of a future good teacher, is important for two fundamental reasons:

- The first, because it constitutes a general provision of thought that can encourage the student to delve into the contents of their professional training (Facio ne, 2000; González, 2006).
- The second, due to the role of the teacher as a modeler of learning in front of his students (Viau, 2009).

In this sense, the teacher is perhaps the only learner model that his students will have. If he or she is not passionate about knowing, he can hardly encourage his students to do so. In this way, he will stay on the technical level, strictly applying the didactic protocol for his subject and will not ensure that his students are motivated to appropriate in a profound way these contents or skills.

**Expectation of staying in the school system.**

Along with the previous variables, and since the goal is to train professionals who perform primarily in the school world, a prospective variable in this case is the amount of time the student-teacher expects to perform in the school system.

- **Complementary variables**

The variables explained above are not the only ones that could be considered when defining and characterizing motivational profiles in student-teachers. Even when there is no unanimous consensus regarding the essential nature of these, they are recognized as widely desirable variables in the training process. Traditionally, there has been a tendency to associate the teaching profession with altruistic motives (Roness, 2011; Roness & Smith, 2010).

However, although altruistic motives constitute a clearly desirable construct, there would be no total consensus that this was a sine qua non variable in the description of the good student of pedagogy. In fact, many studies on reasons for being a teacher do not consider it (Canrinus & Fokkens-Bruinsma, 2014) while others consider it a fundamental variable (Junget *et al.*, 2014).

To the previous variable, those related to the types of motives (or reasons) that students have to keep studying pedagogy are added. This could be explained from the perspective of Theory of Self-determination (Deci & Ryan, 2002, 2012; Ryan & Deci, 2017). The reasons, more or less self-determined, are located in a continuum that goes from the most intrinsic to the most extrinsic, adding to them a state of amotivation (Bruinsma & Jansen, 2010; Vallerand *et al.*, 1989; Vansteenkiste, Lens, & Deci, 2006).

Various investigations have highlighted the fact that people engage in activities for a variety of reasons and that intrinsic reasons have a more positive impact on subsequent outcomes, for example, participation, achievement and performance (Baldassarre & Mirolli, 2013; Vallerand & Bissonnette, 1992; Walker, Greene, & Mansell, 2006). Therefore, the types of underlying motives would affect academic commitment and success (Cerasoli, Nicklin, & Ford, 2014; Hattie, 2009; Robbins *et al.*, 2004).

Another variable that would allow to complement the motivational characteristics of student-teachers is the motivation for academic reading. In this sense, reading texts of the discipline is perhaps the most important mediation to acquire knowledge during university education (Muñoz *et al.*, 2016; Watkins & Coffey, 2004).

This variable can be conceptualized from the Expectation and Value model (Barron & Hulleman, 2015; Rosenzweig & Wigfield, 2017; Wigfield, Tonks, & Klauda, 2009). This model, together with being one of the main theoretical frameworks in contemporary motivational literature, allows visualizing intervention paths based on the components and subcomponents of the construct (expectation; value of the task: utility, interest, importance and cost). Thus, this variable as part of the academic dimension of the degree, complements the one of intellectual curiosity that has been described above.

Finally, to the selection of variables related to motivation during the professional training of future teachers, we add the specific motivation to master the contents of professional teacher training (Valenzuela *et al.*, 2016). Also conceptualized from the Expectation and Value theory (Richardson & Watt, 2014; Wigfield & Cambria, 2010; Wigfield *et al.*, 2009), the motivation to master these contents depends as much on the expectation that the persons have to carry out successfully the task, as well as the value they assign to it. In this sense, it is worthless how valuable the task (perception) is without the feeling of competence to perform it. Similarly, it does not matter motivationally that the person feels capable of taking advantage of university training if for him or her it is worthless.

In this way, a scheme is configured that denotes that every student who aspires to be a good teacher should have a set of characteristics that allow him or her to become a good teacher. These fundamental characteristics would be: having a high motivation to be a teacher, the desire to teach others, a high commitment to their training task, a high intellectual curiosity, and finally, a high expectation of permanence in the educational system.

This study focuses on such variables identified as fundamental while, at the same time, it includes the variables identified as desirable, namely: altruistic motives, extrinsic, intrinsic motives, motivation, motivation for pedagogical training and motivation for academic reading. Therefore, it is the stated objective of this study to identify, through a cluster analysis, the existence of motivational features in student-teachers from motivational variables considered as fundamental for professional training and, in addition, to characterize these profiles from a group of variables considered desirable in a future teacher. This identification and

characterization of motivational profiles constitutes an analysis strategy that allows the motivational characterization of student-teachers, and taking into account local particularities, help to conceive strategies that allow the motivational variables to be enhanced.

## METHODOLOGY

### • Participants to the study

In this study, 400 technical and vocational preservice teachers or prospective teachers were selected from the overall population of student-teachers enrolled in the National Vocational and Technical Teachers Training School (Ecole Normale Supérieure de l'Enseignement Technique (ENSET)) of Lokossa in Benin (West Africa). Participants were from diverse regions throughout the country and they were in the first ( $n = 108$ ), third ( $n = 126$ ) and fifth ( $n = 143$ ) years during the 2017-2018 academic years. It is essential to note that from the 400 participants initially targeted, 377 actually participated, thus giving an effective participation rate of 94,25%. The participants, mainly men (80%), had an average age of 22 years old ( $SD = 4.19$ ) and a teaching experience of 2.97 years. ( $SD = 1.56$ ).

### • Instruments and measures for data collection

The scales used by Valenzuela and Cols (2016) were used in this research. Each of these scales was subjected to a confirmatory factor analysis (CFA) using version 8.8 of the Lisrel software (Joreskog & Sörbom, 2008). All the scales showed a single factor and adequate adjustment indices ( $RMSEA < .08$ ; Schreiber *et al.*, 2006). Additionally, each scale showed high levels of reliability both in Cronbach's alpha (Koning & Franses, 2003; Streiner, 2003) and in the calculation of compound reliability (Peterson & Kim, 2013; Raykov, 1997a, 1997b).

### • Data collection procedures

The data was collected with the different scales in paper format, in person and collectively, at the beginning or at the end of classes at ENSET Lokossa where participants were pursuing studies. The data was collected from August 2017 (test phase) to September 2018 (re-test phase). The time lapse between the two stages was 11 months. The duration of each stage of data collection did not exceed 2 hours. There was a certain easiness in data collection in that the researcher worked as a teacher in the said school and the participants were adults (an average age of 22 years old ( $SD = 4.19$ )). Voluntary participation and confidentiality were guaranteed to all the participants before data collection (López *et al.*, 2015, Gnonlonfoun, 2014, White, 2002, Yin, 1989).

### • Data analysis procedures

To develop the motivational profiles, a cluster analysis was performed using the total sample ( $n = 377$ ). For a better interpretation of the results, the

standardized scores of the five motivational variables selected for this effect were used. As a conglomeration method, Ward's method was used in the perspective of minimizing the variance within each group.

The subsequent characterization of the clusters based on the complementary variables of this study was carried out from an analysis of variance (ANOVA). For comparisons where there was no homocedasticity of variance, the Games-Howell post-hoc analysis was used. Finally, X2 tests were used for the comparison of categorical variables.

## FINDINGS

- **Cluster Analysis:** *Four motivational profiles in pedagogy students*

The cluster analysis, carried out from the variables: a) motivation to be a teacher, b) motivation to teach, c) academic commitment, d) intellectual curiosity and e) expectation of permanence in the school system as a teacher, yields four clearly identifiable and different groups from each other. In order to favor the interpretation of the results, the cluster analyzes were carried out on the basis of the standardized scores of each entered variable, already described. Thus, the resulting variable (type of motivational profile) that accounts for the belonging of students to one of the different motivational profiles, is able to explain more than half (56.7%) of the variability observed in the different variables from which it was constructed ( $\eta^2$ Wilks = .081,  $F(15,2259) = 203.798$ ;  $p < .001$ ;  $\eta^2 = .567$ ). The results of the previous MANOVA supports the validity of the identified profiles.

For the purposes of qualifying the scores, the criterion was used to use  $\pm .33\sigma$  as the cutoff criterion to identify high, medium and low scores.

- **Profile 1:** *Participants without vocation or Participants with no vocation.*

Participants in this cluster are characterized by decreased scores in all the evaluated variables. Specifically, there is a very low motivation to be a teacher ( $-1.75\sigma$ ); as well as for teaching ( $-1.76\sigma$ ). Likewise, it is observed under commitment both with their studies ( $-1.08\sigma$ ) and in the intellectual curiosity that student-teachers present when investigating more deeply the theoretical contents related to their studies ( $-1.06\sigma$ ). Finally, this group has a low expectation of persevering in the educational system as a teacher ( $-0.84\sigma$ ).

- **Profile 2:** *Participants with a naive motivation.*

These student-teacher participants are characterized for their wanting to be a teacher ( $+0.30\sigma$ ), for their desire to teach ( $0.35\sigma$ ); and for their high expectations of permanence in the school system ( $0.70\sigma$ ). However, both their intellectual curiosity ( $-0.55\sigma$ ), as well as their commitment to their studies or

academic engagement ( $-0.52\sigma$ ) appear low. It seems that this profile corresponds to a rather naive student, who believes that to be a teacher, only the taste and the willingness to teach would suffice, but this would not involve a commitment or effort, neither personal nor academic, in relation to their teaching work.

- **Profile 3:** *Participants with non-school vocation.*

In this group, are put those participants who have a vocation of teaching outside the school as an institution. It contains participants who are within the average of their peers, both in their desire to want to be a teacher ( $0.04\sigma$ ) and in their commitment to their studies ( $0.05\sigma$ ). Also, this group of students scores slightly higher than the average both in motivation for teaching ( $0.23\sigma$ ) and in intellectual curiosity ( $0.28\sigma$ ). However, what differentiates it from the highest group or classified as "school vocation", is a very low expectation of permanence in the school system ( $1.03\sigma$ ). In other words, this group of student-teachers wants to teach, but does not want to do it at the school.

- **Profile 4:** *Participants with school vocation.*

This profile is characterized by mean scores on all the variables evaluated: motivation to be a teacher ( $0.43\sigma$ ), academic commitment ( $0.65\sigma$ ), intellectual curiosity ( $0.46\sigma$ ) and expectations of permanence in the system ( $0.76\sigma$ ). The only variable, although positive, that has an average lower than .33, is the motivation to be a teacher ( $0.27\sigma$ ).

- **Cluster Characterization**

From a global point of view, the number of participants from different years (first year and third year (for BAPET) and fifth year (for CAPET) is distributed proportionally within the different clusters. It has been surprising to find some members of Profile 2 among participants from fifth year. In addition another remarkable observation was that some first year and third year participants were found in Profile 2.

In relation to the clusters themselves, while two out of three students are classified within the profiles "school vocation" (37%) and "non-school vocation" (30.11%), the remaining third is distributed in the naive motivation profile (19.89%) and without vocation profile (13%). No significant gender differences were observed as to participation within the different clusters. The same was noted regarding age.

However, when each of the clusters is analyzed, there are differences in participation by sex. In this sense, while the participation of boys in the "no vocation" cluster is over-represented, they are significantly under-represented ( $p < .05$ ) in the "school vocation" cluster. In the case of women, the reverse phenomenon occurs. They are overrepresented in the "school vocation" cluster and underrepresented in the non-vocation cluster ( $p < .05$ ).

- **Characteristics of motivational variables by clusters.**

To characterize the different clusters, from the motivational variables considered as fundamental, other important variables when exercising the teaching career were added to the characterization of the four profiles: extrinsic motivation, intrinsic motivation, motivation, vocational training motivation in its value and expectation dimensions, motivation for academic reading in its value and expectation dimensions and altruistic motives. The effect of the profile variable on the set of motivational variables was analyzed through a multivariate analysis of variance. Motivational variables were used as dependent variables and clusters as a fixed factor. The post-hoc contrasts were performed using the Games-Howell method, a specific method used to minimize the effect of a possible inhomogeneity of variance. MANOVA shows a significant effect on the set of motivational variables analyzed ( $\lambda$ Wilks = .592,  $F(24,2155) = 17,772$ ;  $p < .001$ ;  $\eta^2 = .160$ ).

Univariate analysis shows that only the extrinsic motivation variable is not significant ( $F(3,750) = 1,142$ ;  $p = .331$ ). All the rest of the variables are significant with  $p < .001$ . For analysis purposes, the means obtained by each cluster in the different variables are classified relatively as low, medium, medium-high and/or high groups, this based on their belonging to the resulting homogeneous subsets.

- **Without vocation or No vocation**

Participants classified in this cluster are generally characterized by having consistently lowered scores on all variables. These participants present lower scores and significant differences with respect to the other clusters in the motivational variables: altruistic reasons, motivation for professional training, motivation for professional training and motivation for academic reading (in both dimensions: value and expectation). On the other hand, this group shares low scores on intrinsic motives along with the naive motivation cluster. Furthermore, compared to the other clusters, it presents a significantly higher score in amotivation.

- **Naive Motivation**

The participants classified in this cluster are characterized by having a high altruistic motivation and at the same time, a very low amotivation. In both variables, the participants in this cluster show significant differences compared to those categorized in the no vocation cluster. In turn, the naive motivational cluster shares with the non-school vocation cluster an intermediate condition in relation to the motivation variable for professional training, both in value and in expectation. Regarding the same variable, both clusters are characteristically different from the no vocation clusters, which score low, and the school vocation

cluster, which scores high. Similarly, in the motivation for academic reading (value and expectation), the mean of this cluster, although significantly higher than that of the no vocation is significantly lower than the other two clusters. Finally, the naive are not statistically distinguished in intrinsic and extrinsic motifs from the other clusters.

- **Non-school vocation**

The participants classified in the non-school vocation cluster are part of the high group of altruistic and intrinsic reasons to study pedagogy and are part of the low group of amotivation. In turn, they are distinguished from the no vocation cluster in all these variables, except for altruistic reasons where they differ in the no vocation profile. Like the naive motivation cluster, the non-school vocation cluster belongs to the intermediate group of motivation for vocational training, both in value and in expectation. Likewise, it presents a higher average in relation to the no vocation cluster but a lower one to the school vocation cluster in the said variable. The cluster non-school vocation is located in a medium-high position in the motivation variable for academic reading both in value and in expectation, being only outdone by the school vocation cluster. Finally, the students who belong to this cluster do not present significant differences with the students with a school vocation in their high intrinsic motivation and their low amotivation.

- **School vocation**

The cluster school vocation is classified as a high group in relation to the variables altruistic motives, intrinsic motivation and as a low group, in amotivation. Likewise, this profile evidences a score significantly higher than the rest of the clusters in the motivation for professional training and motivation for academic reading, both in the value and expectation scales of both variables.

## DISCUSSION AND CONCLUSION

The ability to distinguish these motivation profiles in student-teachers or prospective teachers contributes to deepen the motivational characterization efforts of future teachers. The few recent studies in this line consider variables related to the theory of self-determination (Aguilar-Rivera, 2016) or are based on the combinatorial types of goals (Valle Arias *et al.*, 2010). In most of these studies the goal is to be able to predict, for example, other motivational and achievement variables. However, despite its predictive value, no other relevant motivational aspects are considered to characterize and understand the complexity of the desirable profile in pedagogy studies, nor is it they observe distinguishable profiles on which some level of intervention by the training provision is possible. Therefore, the motivational characterization resulting from this study makes a strong and valuable contribution in that it allows teacher training institutions

to realize that not all of their students have the same motivational profile. In this sense, this classification can contribute to strengthening motivational variables in a pertinent way, taking into account the different profiles identified.

Along with the above, it allows thinking about orientation and selection criteria for those who want to enter the teaching career especially in this era of accountability and reforms in Beninese school system.

From the view of motivational support, this classification allows to diagnose and sincere the different types of students who are trained to be a teacher and to help them in a different way. Thus, these results may be the opportunity to guide students "without vocation" towards careers where they can develop their talents more fully, while avoiding the disadvantages of having teachers in the educational system who do not really want to teach since they have neither intellectual curiosity nor commitment to their training and that they also do not want to stay in the school and, nevertheless, continue in the school system.

Faced with naive student-teachers, teacher training schools and other universities have the opportunity to generate strategies linked to academic demand that clearly show that a feeling of adherence to the profession, the mere taste for teaching or wanting to teach learners" (Abramowski, 2010). To become a teacher, you must commit to study and take advantage of the training opportunities offered by the training institution: this reality that may seem obvious, is not actually so obvious.

Compared to students with a non-school vocation, that is, students who do not want to be teachers and teach, and who are committed to their study, it is up to us to offer a critical and change perspective, showing them the contribution they can make to improve that School that distances them from their vocation (Gaete & Ayala, 2015; Gaete Silva *et al.*, 2017; Mizala, 2011).

Finally, the identification of students with a "school vocation" reveals a desired motivational profile for student-teachers or prospective teachers. This is a profile that should be promoted and cared for. The promotion of a profile like this can not only take place within the university training, but also before entering the teaching career. It would be desirable for secondary school students to have as a horizon that being a primary teacher implies a motivational commitment that goes beyond mere interest in a career, that is, it also implies an academic commitment to training. On the other hand, it is precisely this group of students who must be supported to prevent them from becoming discouraged. The generation of devices that challenge them to take advantage of their motivational potential to be excellent professionals is an interesting clue to

precisely care for the group most exposed to demotivation processes.

More concrete suggestions especially on strategies to avoid demotivation could be given. However, this must be done in the face of variables that are deteriorated in each case. Notwithstanding, the most significant motivational changes are related to the expectations of permanence in the school system and the value component of the motivation variables for academic reading, and motivation for professional training and, finally, with intellectual curiosity. Thus, these general suggestions, especially those related to demotivation, have to be considered taking into account the specific variable that tends to decline, and the context in which this motivational change occurs.

On the other hand, in the perspective of the orientation and selection of the future student-teachers in teacher training schools in Benin, these profiles can help to reflect both the candidates and the institutions of higher education regarding the future student to whom they aspire. In turn, this could constitute a judgment tool for those candidates without a pedagogical vocation that invites them to choose other academic spaces according to their true interests.

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