

# Impacts of Social Origin on the Academic Career of University Students. The Case of the Faculty of Sciences of Ben M'Sick

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**Abstract:** Inequality of educational opportunities according to parental background is one of the most studied and debated topics in social sciences. Educational success remains strongly correlated with social background. The principle of equality among students, who are supposed to receive the same education regardless of their individual and family characteristics, is undermined by the exclusion mechanisms at work in Moroccan schools. Loosening the link between the inequalities of students' social origins and their academic and social future was one of the major missions entrusted to the university. In the Moroccan education system, the growth and reproduction of inequalities are one of the factors contributing to the education crisis. In a purely sociological approach, our study analyzes, through a questionnaire survey, the socio-economic and cultural status (financial income and parents' educational levels) of students at the Faculty of Sciences Ben M'Sick (FSBM) in Casablanca, which is geographically located in an environment surrounded by working-class neighborhoods. The results obtained in our study attest that the social and cultural heritage of the parents transmitted to their children (students of the faculty) had effects on social reproduction, as well as the strong implication of the social origin in the learning process.

**Keywords:** Social Reproduction, Social Origin, Social Heritage, Learning Process

## Introduction

Differences in student academic achievement due to family Socio-Economic Status (SES) are widely recognized. On average, children from low-SES families perform less well academically than their more affluent counterparts (Kim *et al.*, 2019; Liu *et al.*, 2020; Sirin, 2005). Cross-sectional studies have shown a significant positive correlation between parental school involvement and children's educational outcomes (Driessen *et al.*, 2005; Khajehpour and Ghazvini, 2011). Longitudinal studies have also demonstrated the lasting effects of parental school involvement on academic achievement (Benner *et al.*, 2016; Dearing *et al.*, 2006). Meta-analysis studies have indicated significant and positive associations between parental school involvement and children's academic achievement (Castro *et al.*, 2015; Jeynes, 2005). On the other hand, previous studies have indicated that family SES is correlated with parental school involvement. For example, high family financial pressure is related to

lower parental involvement in adolescent schooling (Camacho-Thompson *et al.*, 2016).

In contrast, advantaged families can provide more cognitive activities than disadvantaged families (Mistry *et al.*, 2008).

Research has demonstrated the advantageous position of educated and socioeconomically stable parents over their lower-class counterparts in successfully intervening and shaping their children's education (Ball, 2003; Reay, 2005).

Academic success at university is strongly influenced by students' social backgrounds (Vermandele *et al.*, 2010). Several studies (Arulampalam *et al.*, 2004) show that failure at university, which is particularly massive in the first year, is partly linked to the socio-cultural and financial resources of the student's family environment. Depending on the social environment to which they belong, students inherit certain cultural traits, which the authors call 'habitus', i.e., a set of durable cultural dispositions associated with a social position and resulting from a process of inculcation'. The major implication of

this 'cultural' difference would be a different adaptation to the university depending on the background. Thus, these authors argue that students from disadvantaged backgrounds have less access to the cultural practices that are valued at university.

Family of origin plays a crucial role in shaping an individual's educational outcomes and aspirations and these relationships are likely to be fairly invariant across time and space. Studies support the idea that there are additional effects of social background on educational attainment beyond school, such as growing up in a poor neighborhood, thus reinforcing the influence of social background.

The question is whether the university institution, in this case, our faculty, can mitigate the social inequalities of students from a modest class background, or are we witnessing a belt of reproduction of inequalities? As well as the presence of adequate strategies and differentiated pedagogical methods targeting students with learning difficulties related to social background.

The problem raised in this study is: Are students from working-class backgrounds exposed to the risk of failure and worried about pursuing university studies in favorable conditions? and what difficulties are correlated to the social origin of their families (professional and cultural situations of parents)?

This study aims to identify, on the one hand, whether students from working-class backgrounds are exposed to the risk of failure and worried about pursuing their university studies under favorable conditions and on the other hand, to determine the difficulties correlated to the social origin of their families (professional, economic and cultural situations of the parents).

## Materials and Methods

### Research Approach

The study adopted a research approach using the quantitative analysis method.

Our research design is exploratory and descriptive based on:

- The detection of the problematic
- Identification of the research objective
- The bibliographic study
- The choice of the sample
- Distribution of the questionnaire: Data collection instrument
- Analysis and interpretation of the results
- General conclusion and perspectives

The objective is to explore and describe quantitatively in depth the socio-economic and cultural characteristics of the students of the Faculty of Sciences Ben M'Sick (FSBM).

Our approach is thus characterized by an observatory aspect according to the questions of the questionnaire,

obtaining information on the motivations, reasoning, and attitudes of the respondents.

### Study Setting

We conducted the entire study at the FSBM, which belongs to the Hassan II University of Casablanca (H2UC), after obtaining all the approvals from the administration to contact and communicate with the students.

Hassan II University of Casablanca (H2UC) is located in the city of Casablanca, which is ranked as the largest university in Morocco. It responds to the work of the public service of higher education, scientific research, and educational innovation. It oversees 18 separate institutions (regular open access), spread over 6 campuses located in two cities (Casablanca and Mohammedia). It currently includes more than 117,000 Moroccan and foreign students.

The Faculty of Sciences Ben M'Sick (FSBM), belongs to the H2UC of Casablanca and is geographically located in a popular area. It is divided into five scientific departments and includes six basic degree courses and 18 Masters, 23 research structures, two research centers, an observatory "ordipu" (research observatory in didactics and university pedagogy), a PINTECH platform and 19 laboratories in various fields (engineering sciences and techniques, materials, biotechnology, geoscience, etc.).

The choice of this institution is justified by its rich history and the fact that it is a pioneer among other institutions in terms of multidisciplinary, as it contains different scientific specialties.

### Sample

The target population was all university students enrolled in the fifth and sixth semesters of the undergraduate cycle at FSBM. The students were divided into groups according to each department of the faculty, where each group comprises a limited number of students.

We conducted the study on a representative sample of  $n = 918$  students (approximately 10% of the population). We randomly selected individuals from each department to form a sample that contained almost the same proportion of students.

Table 1 the distribution of the sample members, using probability sampling.

### Method of Data Collection and Analysis

We opted for the questionnaire survey (in electronic format via Google Forms) as a research instrument, using a set of questions to collect quantitative (MCQs, binary questions, and Likert scale) and qualitative (open-ended questions) data.

Our questionnaire consists of 37 questions divided into three sections, Table 2.

**Table 1:** Distribution of sample members

Scientific field	Effective	Percentage %
Mathematics and computer science	264	28,76
Physics	192	20,91
Chemistry	189	20,59
Biology	204	22,22
Geology	690	7,52
Total	918	100

**Table 2:** Distribution of the questionnaire

Sections	Number of questions	Description
Personal and socio-demographic characteristics	13	This section defines the personal and socio-demographic characteristics of the students surveyed (gender, age range, parents' residence, type and grade of baccalaureate, department of affiliation, grades obtained at the FSBM, scholarship, etc.)
Socio-economic and cultural conditions of the student	16	In this section, the socio-economic and cultural characteristics of the interviewed students are defined (tutor, activities, professional status, monthly income and schooling level of parents, number of siblings, professional activity carried out during studies, financial estimation, etc.)
Socio-environmental aspects of the FSBM	8	In this section, the socio-environmental aspects of the FSBM students are defined (economic and cultural environment of the families, respect for equal opportunities of the students, learning and social level of the students, etc.)

**Table 3:** Validation of items by Cronbach's alpha

	Number of questions	Alpha Cronbach
1. Personal and socio-demographic characteristics	13	0.987
2. Socio-economic and cultural conditions of the student	16	0.867
3. Socio-environmental aspects of the FSBM	80	0.954
The entire questionnaire	37	0.915

### Validation of the Questionnaire

We used the SPSS software (IBM SPSS Statistics 22) which allows us to directly draw a set of indicators allowing the validation of the measurement instruments.

The technique for estimating the homogeneity of the items in our questionnaire is based on the model of correlations between the items. The method used to assess the internal consistency of a scale in our questionnaire is the calculation of the "Cronbach's alpha" index. It is from 0.8 that we can admit the reliability of the scale (Peterson, 1995).

We obtain the number of questions in each section, as well as the values of "alpha Cronbach", Table 3.

All calculated values are above the recommended threshold of 0.8, so all items are adequately cross-correlated. Based on these results, we kept all items and concluded that the internal validity of the questionnaire is admissible.

In addition, the qualitative questions were validated by three experts in this way, to ensure that all dimensions of the concept are covered in the questionnaire.

### Results

The three-part questionnaire was administered via Google forms to students enrolled in semesters S5 and S6

at the faculty of sciences Ben M'Sick in Casablanca, an institution geographically located in a popular environment on the outskirts of the Casablanca metropolis.

The first part of the survey, which consists of a series of items allowing to draw up the socio-demographic profile and the educational trajectory of the participants, revealed that 70.9% of the 918 answers were female, while 29.1% were male.

We have seen that it is not necessary to concern ourselves with comparing men with women because the difference in the level of university education of its success in relation to social origins does not take into account sex and does not make difference between male and female students. For example, we cannot say that this student suffers from problems or has obstacles at the academic level (influence of social origin) because he is male or female. The object of our research lies in the scientific integrity of non-discrimination.

The age of the respondents (85.9%) ranged from 17 to 23 years old. In terms of geographical disparities, the residence of the parents of pupils in urban areas concerns (71.9%) of students, while in semi-urban areas (14.4%) of students, against (11.1%) of students from rural areas (Fig. 1).

Baccalaureate endorsements are: "Passable (31.7%),

fairly good (30.1%) and good (30.4%)", whereas the mentioned "very good" concerns only (7.8%) (Fig. 2).

Students at FSBM had average grades (57.8%), while good grades were (38.6%) and very good grades were (3.6%) (Fig. 3). More than half of the students in the faculty do not receive a scholarship (56.9%) (Fig. 4).

For the socio-economic and cultural aspect of the students interviewed, we note that (86.3%) are under the guardianship of the father, while (8.8%) are under the guardianship of the mother (Fig. 5), only (1%) are under the guardianship of a brother or sister, (3.9%) declare that their guardianship is another person far from the family.

For the activity of the guardian, (54.2%) declare that the guardian (father/mother/father/sister) is currently working, (20.9%) are retired, while (13.1%) are unemployed (Fig. 6). For mothers who are not in employment (housewives), a rate of (85.6%) is recorded, while just (9.7%) are in employment (Fig. 7).

For the professional activities of the tutor: (31.7%) of the fathers are self-employed, (22.1%) hold positions of responsibility in the public sector, (19.4%) are employees in the private sector, (12.9%) are executives in the private sector (Fig. 8).

For the tutor's monthly income, (35.3%) declare that the income slightly exceeds the Moroccan SMIG 2,698 dh/month (253€) (Fig. 9). For working mothers, (83.3%) report that no monthly income is achieved (Fig. 10).

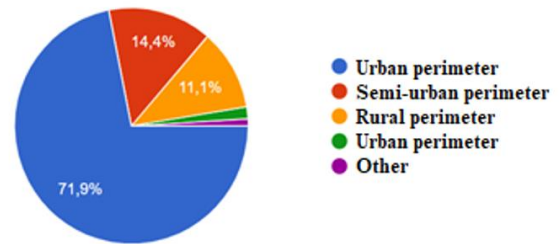
(39.9%) stated that the father's level of education did not exceed the baccalaureate, while (37.9%) did not attend school, (10.5%) had a vocational diploma and (11.8%) were university graduates (Fig. 11). As for the education of mothers, (49%) are not in school, while (38.2%) do not exceed the baccalaureate, only (7.5%) are university graduates and (5%) hold a professional diploma (Fig. 12).

Figure 17 shows that (42.2%) strongly agree that the majority of FSBM students come from a disadvantaged socio-economic and cultural background (Fig. 13) and (36.9%) weakly agree that the level of learning depends on the student's social level (Fig. 14).

Thus, (34.3%) of the students qualified that there is a social effect on the choice of fields of study (Fig. 15), and (43.8%) disagreed that dropping out of university is partly due to the social situation of students (Fig. 16).

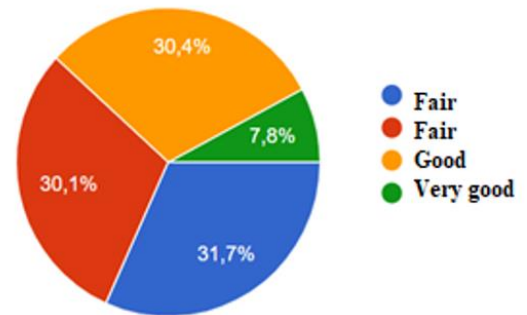
Research on intergenerational social mobility aims to determine the extent to which a person's social position depends on those of their parents. The majority of the students surveyed (88.6%) would like to have a social position that is better than that of their parents, while limited future horizons are only (8.8%) and very few students (3.4%) would follow the same path as their parents (Fig. 17).

**Residence of parents/guardian**



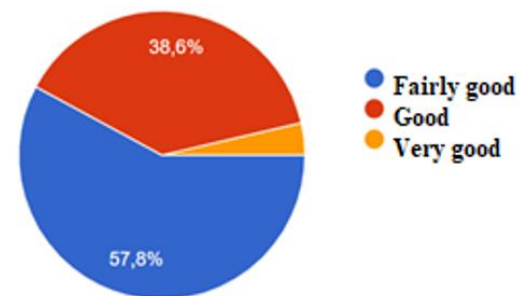
**Fig. 1: Residence of parents/guardian**

**The mention of my baccalaureate is :**



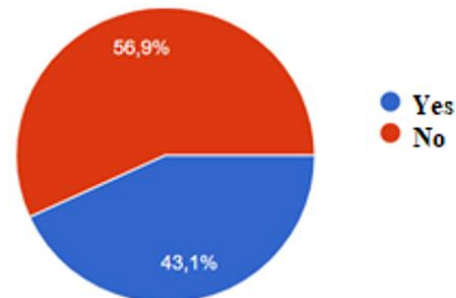
**Fig. 2: The mention of the baccalaureate**

**My grades at FSBM are:**



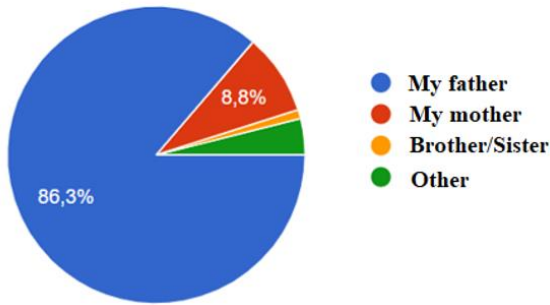
**Fig. 3: Grades at FSBM**

**I benefit from the university scholarship**



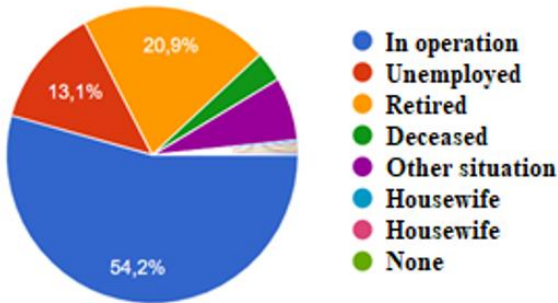
**Fig. 4: University scholarship**

**My tutor is :**



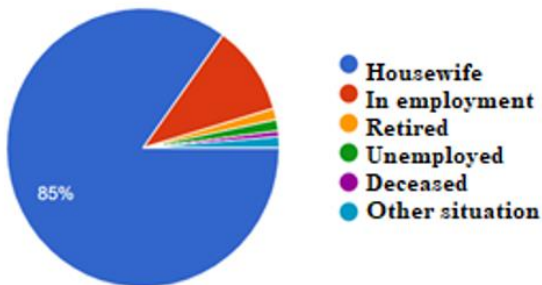
**Fig. 5:** Tutor of students

**Currently my tutor is :**



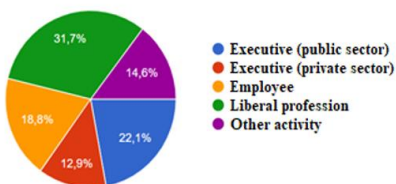
**Fig. 6:** Currently tutor

**My mother is :**



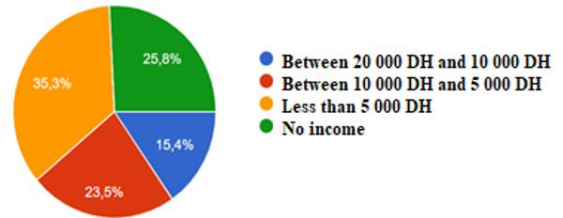
**Fig. 7:** Profession of the mother

**If my father/guardian is working, please specify his professional status**



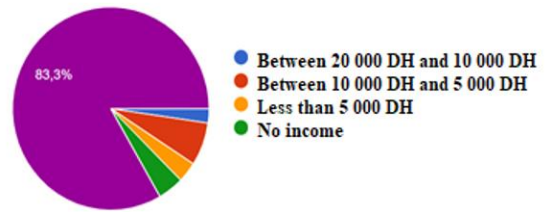
**Fig. 8:** Professional status of the father

**My father/guardian's monthly income is:**



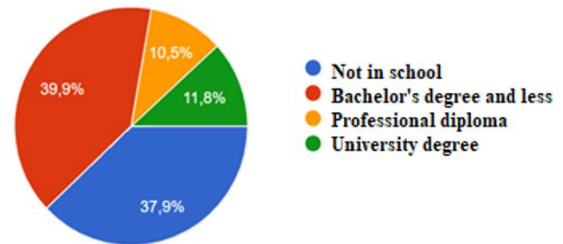
**Fig. 9:** Income of the father/guardian

**My mother's monthly income:**



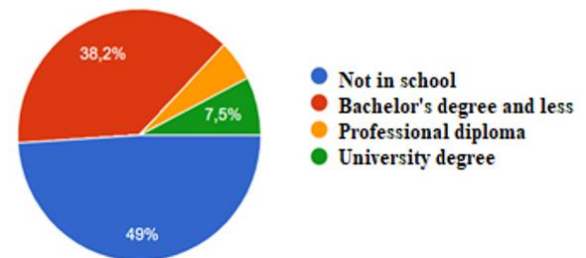
**Fig. 10:** Income of the mother

**Grade level of my father/guardian:**



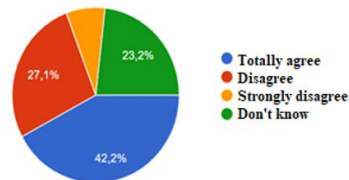
**Fig. 11:** Grade level of the father/guardian

**Grade level of my mother:**



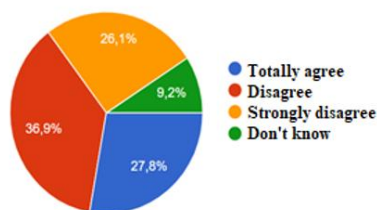
**Fig. 12:** Grade level of the mother

**The majority of our students come from socioeconomically and culturally disadvantaged families**



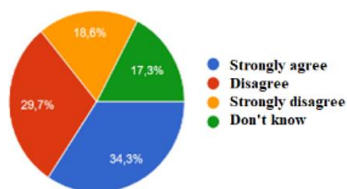
**Fig. 13:** Socioeconomically and culturally disadvantaged families of the students

**The level of learning depends on the social level of the student**



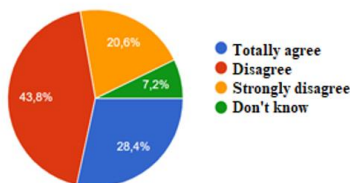
**Fig. 14:** Relationship between the level of learning and the social level of the student

**There is a relationship between university courses and the social status of the student**



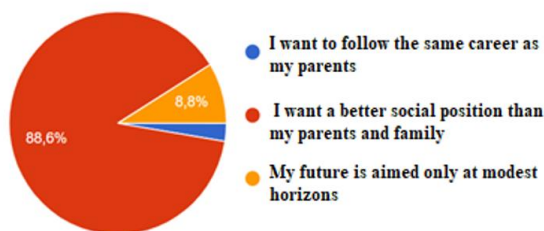
**Fig. 15:** Relationship between university courses and the social status of the students

**Failure in college is mainly due to the social difficulties of the student**



**Fig. 16:** Relationship between failure in college and the social difficulties of the students

**My future prospects:**



**Fig. 17:** The future prospects of the students

**Discussion**

The quantitative survey data provided a complex picture of the socio-economic and cultural climate of FSBM students. This study highlights social reproduction and shows that the most economically and culturally disadvantaged students are also disadvantaged in their learning in general, meaning that this deprivation significantly influences their success, knowing that student success is reflected in this context in

academic achievement, engagement in educational activities, satisfaction, knowledge acquisition, skills and knowledge, persistence, academic achievement, and post-graduation performance. Furthermore, we can extend this (economic and cultural) impact on student success by focusing on six more important components, namely: Academic achievement, satisfaction, skill and knowledge acquisition, persistence, learning goal attainment, and career success (York *et al.*, 2015).

This is justified by the very low rate of students with very good grades (3.6%) versus (57.8%) of students with average grades.

In general, to better describe this concept, we can consider academic success the successful completion of an academic pathway (achievement of learning goals and mastery of knowledge). The results and the obtaining of recognition of prior learning (diploma, certificate, attestation of studies, etc.) are indicators of academic success. This term, therefore, carries with it the idea of achievement and performance. In addition to this, instruction (integration of academic knowledge), socialization (acquisition of knowledge, values, attitudes, and behaviors useful for functioning in society), and qualification (preparation for professional integration).

Despite the fact that 70.9% of the students were female, we did not give much importance to "gender", since it does not depend on the social level of the parents.

Given that the rate of tutoring of mothers is only (8.8%) ahead of (86.3%) of fathers and the residence of parents in the urban area concerns (71.9%), we believe that the comparison of the type of tutoring (father/mother) and place of residence will not have much impact on the results of students.

Adding that no impact is raised and no difference was detected concerning students who live with their mother compared to students who live with their father.

It can be seen that factors internal to the family (culture, social background, geographical environment) have a considerable influence on the student's education. It is especially in the undergraduate cycle that learning is heavily affected by the financial/cultural difficulties of the environment to which the student belongs.

This corroborates Bourdieu and Passeron (1964) idea that the economic and cultural capital thus inherited has a considerable influence on the student's academic career.

Saunders (2010); Nielsen (2016); Schulz *et al.* (2017) pointed out that the advantage of students from higher social classes may be lower because parents are more able or motivated to invest in the development of their offspring's skills.

The institution effect is explained by the social composition of its audience, induced by its geographical location (Duru-Bellat, 2015).

The cultural level of the family must be considered as an essential dimension when explaining the relationship

between the student's academic success and the family's social status. In effect, academic success varies, at equal income levels, with the cultural level of the parents, measured by the highest diploma held by one or other of the parents.

On the side of the families, it is also a question of considering that they do not have the same knowledge of the university system and therefore relevant strategies to develop (Van Zanten, 2009).

According to the results of the TIMSS 2015 survey, the family factors that differentiate between students in terms of learning are twofold: The socio-economic and cultural level of the family and the involvement of parents in their children's education.

Parental resources, as well as the transmission of 'success genes' (Belsky *et al.*, 2016), stimulate the development of student's skills, similar to the notion of primary effects of social background on educational attainment, which refers to social background differences in the emergence of educational success (Jackson *et al.*, 2007; Von Hippel *et al.*, 2018). In this regard, it is more informative to examine the specific interactions between parent and child characteristics as predictors of educational attainment in addition to their additive contributions (Damian *et al.*, 2015; Liu, 2019). SES favoured parents are more effective socializing agents for a pathway to higher education as they are better able to equip their children with the cultural capital that helps them meet the expectations of the gatekeepers of the education system (Lareau, 2003).

As support is expected from parents, this is a realistic aspect of the opportunity calculus in higher education, but it inherently disadvantages students from lower socio-economic backgrounds, where parents are not able to support their children. While parents can resist an unfavorable teacher recommendation, those from higher socio-economic backgrounds have greater motivation and a sense of entitlement than parents from lower socio-economic backgrounds (Ditton and Krusken, 2006; Jaehnen and Helbig, 2015). The early timing of follow up is thought to lead to more socially biased educational decisions, as educational decisions are more dependent on parental expectations (Freitag and Schlicht, 2009), while uncertainties about children's academic ability are still high (Hillmert, 2005).

Jaehnen and Helbig (2015); Roth and Siegert (2016) have shown that resource inequality within the parental household leads to unequal educational opportunities for the offspring through a series of mechanisms that seem difficult to counteract. The most studied resource variables are income, social class, parental occupation, and parental education. There are several ways in which these parental resources become relevant to the student's academic success in the transition to university. First, parental resources are useful in promoting the development of skills that can improve a child's academic

performance by fostering an environment that supports intellectual development. It has been found that parents with higher levels of education talk more to their children, read books to them, and use a more diverse vocabulary, (Rowe, 2008). A better financial situation can help optimize the learning environment, for example by providing better physical conditions for learning at home less crowding and noise (Dearing and Tang, 2010) and allowing for private investment in education (e.g., tutoring), which can help improve student academic performance (Dang and Rogers, 2008).

Children of better-educated parents also show greater openness to new experiences. Such social background effects referred to as primary effect), are reflected in the child's school performance before the transition to secondary school, which makes it difficult to confront the child and parent characteristics that influence this transition due to endogeneity.

## Conclusion

In this study, we conducted a sociological survey of students at the FSBM, which is located in a popular socio-economic and cultural status (financial income and parents' educational levels).

The academic career of students is influenced by their family situation, particularly economic and cultural. This validates the theories of the effect of social inheritance on the academic career of students. Reducing the legacy of educational inequalities within the framework of a holistic approach that integrates the economic, political, institutional, cultural, and behavioral dimensions will undoubtedly contribute to the major project "The new development model" initiated by the Moroccan high authorities.

This study recognizes that in Morocco, despite the efforts made since independence to offer the same education to all and to allow the most 'deserving' students to distinguish themselves, regardless of their characteristics. However, despite the efforts made, territorial and social disparities are found in the university environment, particularly in the faculty of sciences Ben M'Sick.

Although the study yielded important results that responded favorably to our problem, it showed a limitation in terms of the effect of the parents' social heritage on the academic career of FSBM students and we, therefore, suggest comparative studies in the future with another university whose students' socio-economic and cultural characteristics are favorable. As well as interviews with teachers to capture their opinions on the sociological aspect of the students.

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## Author's Contributions

**El Hassan Aamro:** Identification of the research objective, synthesis and bibliographic study. Participation in the drafting of the manuscript and the interpretation of the results.

**Jabran Daaf:** Participation in the drafting of the manuscript. The development of the questionnaire and its distribution, as well as the collection of data.

**Mohammed Talbi:** Participation in data analysis and reference management.

**Mohamed Radid:** Participation in the interpretation of results. Research previous research similar to the study.

**Nadia Chafiq:** The contribution to the correction of the English language. Supervision of the work flow and general supervision.

## Ethics

Our article is original and contains previously unpublished material. The authors confirm that they have read and approved the manuscript and that no ethical issues are involved.

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