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Evolution of accounting education in Italy, 1890-1935 / Lazzini, Arianna; Iacoviello, Giuseppina; Ferraris Franceschi, Rosella. - In: ACCOUNTING HISTORY. - ISSN 1032-3732. - 23:1-2(2018), pp. 44-70. [10.1177/1032373217715041]

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Evolution of accounting education in Italy, 1890–1935

Accounting History

1–27

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DOI: 10.1177/1032373217715041

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Abstract

This article focuses on the development of the study of accounting in the Italian education system between the nineteenth and twentieth centuries. It also focuses on the subsequent formation of a scientific and experimental *forma mentis* that would prepare students for administrative and managerial activities in industry, commerce and public administration. Starting from the second half of the nineteenth century – when the presence of accounting in education was limited to secondary school and implemented with sporadic educational initiatives by private bodies – and covering approximately the 50 years after the unification of Italy, this study analyses, through the lens of Foucault's power–knowledge relationship, the institutional and structural measures adopted by the State to develop the study of accounting in Italy, in the period 1890–1935.

Keywords

accounting, accounting education, Italian education system, Italy, technical education

Introduction

Because of a 'cultural renaissance' involving the educational, scientific and professional aspects of accounting education, the period between the nineteenth and twentieth centuries is a particularly interesting one in the field (Anderson-Gough, 2009; Birkett and Evans, 2005; Evans and Juchau, 2009).

Scientific debate in Italy was particularly intense during this era. The rise and fall of the logis-mographic method, the debate about Besta's conceptions and the 'Zappa revolution' belong to this age (Lazzini and Ponzo, 2005; Sargiacomo et al., 2012; Zan, 1994). The foundations for the renewal of accounting were thus laid: from a restrictive conception of accounting, conceived as mere technique, the scientific and systematic study of 'Economia Aziendale' (Concern Economics) arose (Canziani, 2007; Cavallini, 2003; Ferraris Franceschi, 2012a, 2012b; Mattessich, 2003,

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2013). As proposed by Gino Zappa, 'Economia Aziendale' is a comprehensive doctrine with an approach similar to that of the German 'Betriebswirtschaftslehre' (Küpper and Mattessich, 2005), which regards business as a complex whole. Zappa in the theorization of 'Economia Aziendale' proposed a radical and holistic approach based on a 'unitary view of the azienda' (translated as 'concern') (Zan, 1994). 'Economia Aziendale' regards the study of all forms of economic organizations at all levels aiming to develop a set of general principles to govern the equilibrium of the 'azienda' (Cinquini and Marelli, 2007). Zappa conceived 'Economia Aziendale' as complex discipline composed by three separate but connected parts: accounting, organization and management. In Zappa's thought, accounting could not be considered separated from organization and management because he believed the 'azienda' was a unitary phenomenon.

The fundamental need both to promote Italy's economic development and to create an educated and well-trained managerial class would lead both to the progressive introduction of the first high schools of commerce (*scuole superiori di commercio*) and to the creation of modern faculties of economics. In this context, numerous important editorial initiatives were launched, including the founding of various scientific journals and the release of a growing number of accounting-related publications and monographs (Antonelli and D'Alessio, 2011).

This fervour in the accounting field coincides with important social and cultural changes. From a social and political perspective, Italy's post-unification (1861) difficulties were of considerable importance: Italy had been established, making it '*necessary to make the Italian people*' (Hom, 2013; Martini, 1896; Soldani and Turi, 1993) in a context of genuine social and economic backwardness. Many areas of Italy were characterized by a lack of infrastructure, widespread illiteracy and feudal customs and practices (Lacaita, 1973; Mills, 1994).

It was in this period that the conditions for the development of economic studies were created. Legislation was introduced to promote compulsory education, and the first accounting programmes began to appear at various educational levels, creating an environment for the subsequent development of accounting studies. Furthermore, there was growing pressure from both the public and the private sectors to study more deeply the mechanisms of the management and control of firms, banks and public authorities (Martini and Zan, 2001).

The period analysed in this study is particularly interesting because it was characterized not only by important political and cultural changes but also by two related important structural educational reforms: the Casati and Gentile laws. From a political perspective, the period was characterized by two dominant movements – liberalism (1861–1922) and fascism (1922–1945) – that deeply influenced accounting practices (Cinquini, 2007; Galassi and Mattessich, 2004) as well as the entire Italian education system (Minio-Paluello, 1946). The transition from the Casati law to the Gentile reform involved a radical change in the conception of education. When the Casati law was in place, the dominant cultural paradigm was positivism, a belief based on the existence of an external world separate from humans that could be explored and studied using the tools of modern science (Palomba, 2009). On the political side, this era was represented by the Enlightenment, which gave birth to European liberal democracy. Liberalism highlighted the distinction between public and private, conceiving of society as an aggregate of individuals with basic rights that needed protection from the state. During this age, education was perceived as a mere process through which to give information to pupils (Canestri and Ricuperati, 1976). The Casati law also became the general framework for the Italian public school system, which experienced numerous changes throughout the liberal period. Government policies during the liberal age led to a substantial increase in the number of schools, teachers and students, along with an increased literacy rate (Pazzaglia and Sani, 2001).

The Gentile law rejected the positivist vision. Gentile embraced Hegelian neo-idealism principles based on the spiritual nature of reality (Harris, 1960), considering the state as the sum of all

individual wills. In Gentile's vision, education played a fundamental role because it was considered a spiritual synthesis between the teacher and pupil, a sort of 'self-formation of the personality' (Canestri and Ricuperati, 1976).

Based on Carmona and Zan (2002) and acknowledging the importance of exploring new areas of research in the field of accounting history, this article seeks to study the institutional and structural measures adopted by the State to develop the study of accounting in the Italian education system between the nineteenth and twentieth centuries. The article embraces a historical period characterized by significant changes in the new Italian state's political, social and economic spheres. Its primary purpose is to make the role played by the education system explicit, through reconstructing the general picture of the study of accounting in Italy's various types of schools and institutes from 1890 to 1935.

This study is positioned within the field of critical accounting research (Cooper and Hopper, 1987; Laughlin et al., 1989) and its results are analysed through the lens of Foucault's knowledge and power theory.

The materials used in the study include both primary and secondary sources (Carmona, 2004; Paisey and Paisey, 2004). The secondary sources used are the most important national and international studies emanating from both inside and outside the accounting literature, several articles published from 1901 to 1935 in the main Italian accounting scientific journals, and relevant newspaper reports. The primary sources used to inform this study are numerous original documents issued from 1890 to 1935 by the government and maintained in the historical Archive of the State in Rome. The primary sources – mainly from the Official Gazette of the Italian Republic – have been used to retrace the development of the study of accounting during the period analysed. The secondary sources supported both the development of the theoretical framework and the definition of the historical context (cultural, social and economic).

The remainder of this article is structured as follows. The 'Literature review' section provides an analytical review of the literature. The 'Theoretical framework' section explains the theoretical framework, and the 'Economic development, businesses and the teaching of accounting' section describes both the economic development and the teaching of Concern Economics (Capalbo and Clarke, 2006). The 'Lower and higher secondary education reforms in Italy, 1890–1935' section analyses the process of Italy's reform of lower and higher secondary education and its effect on technical and commercial education. 'The study of accounting in the technical institutes' and 'The study of accounting in the high schools of commerce' sections describe the role of technical institutes and commercial high schools, respectively, in teaching accounting. Our discussion and concluding remarks are presented in the final section.

Literature review

According to Anderson-Gough (2009), accounting education is not yet the subject of significant study by accounting scholars, and considerably more historical investigation of accounting education in various times and places would be welcome (Carmona and Zan, 2002; Edwards, 2011). Most of the international literature focuses on the current study of accounting at the high-school or university level (Apostolou et al., 2013; Engwall, 2007), whereas little attention has been given to the same topic from a historical perspective (Armstrong, 1993; Edwards, 2011; Engwall and Zamagni, 1998; Nelson, 1995; Rodrigues et al., 2007; Wyhe, 2007; Zolger, 1905). The current international historical literature in the education field is mainly addressed to study the phenomenon focusing on two main aspects: institutions (Dahrendorf, 1995; Napier, 2011; Rodrigues et al., 2004) and key accounting scholars (Anderson, 2002; Anderson et al., 2014; Carnegie and Williams, 2001; Carnegie, 2016; Clarke, 2005; Dagnino and Quattrone, 2006; Edwards, 1994; Gaffikin and

Aitken, 1982; Parker, 1997, 2002; Sargiacomo et al., 2012; Shelton and Jacobs, 2015), while scarce attention has been given to the introduction, evolution and structure of accounting courses in the education system – schools and universities (Rodrigues et al., 2007).

In the Italian context, the contributions from scholars of various disciplines (Barbagli, 1974; Bergamin Barbato, 2009; Bosna, 1986; Castelli, 1915; Gozzer, 1958; Massa, 1992; Patergnani and Pepe, 2011; Porciani, 1994; Zamagni, 2008) appear to be limited to specific aspects. For example, some authors have adopted an investigative perspective to analyse the evolution of accounting education through the history either of single faculties of economics (Berengo, 1989; De Azevedo, 2006; Di Vittorio, 1987; Massa, 1992) or of universities as a whole (Antinori and Testa, 1999; Bullita, 2004; Del Negro, 2001). Others have studied the phenomenon by analysing the effects of accounting studies on the accounting and business consulting professions (Coronella, 2007; Coronella et al., 2015). Conversely, scarce attention has been paid to analysing the various stages of the introduction and development of accounting studies in the Italian education system overall (Ferraris Franceschi, 2012a, 2012b; Longobardi, 1927).

This study is based on the assumption that the development and distribution of any system of knowledge are profoundly influenced by the structure of the secondary and higher education system. Consequently, the success of accounting and concern economics studies and their dissemination among young people can be related to the role played by educational institutions. It should be emphasized that the teachers in the ‘technical institutes’ and ‘higher schools of commerce’, including eminent scholars of the calibre of Fabio Besta and Gino Zappa, encouraged scientific debate in this discipline (Ferraris Franceschi, 2012a; Giannessi, 1954). Those scholars created the conditions for the formation of a circle of intellectuals and scholars and the constitution of important schools of thought, generating a new class of accounting scholars. In essence, the dissemination of the concern economics approach, to which accounting belongs, occurred largely because of the development of educational institutions. Thanks to Italy’s technical institutes and higher schools, it was possible for the leading Italian accounting scholars both to engage in and to go beyond providing answers to real needs and practices. Teaching posts became the crossroads for the development of intense scientific debate that would lead both to the formation of the main Italian schools of thought and to the development of Concern Economics (Viganò, 1998). The entire process was deeply affected by the reforms of the entire Italian education system and consequently the role of the State with its institutional and structural measures was decisive.

The intervention of governments in accounting education is an important but neglected topic of the broader research agenda. This research aims to reduce such a gap by analysing the role of the State in the development of accounting education in Italy.

Theoretical framework

In analysing the institutional and structural measures adopted by the State to develop the study of accounting, in accordance with a critical accounting framework (Carmona, 2004; Carnegie and Napier, 1996; Miller et al., 1991; Miller and Napier, 1993), this study considers that context is a critical aspect for a deep knowledge of the phenomenon. According to Hopwood (1978, 1983; Hopwood and Miller, 1994), accounting cannot be isolated from the social contexts in which it exists. Consequently, the study of accounting and related topics can be better understood as part of society’s cultural apparatus (Burchell et al., 1980; Gomes, 2008; Lazzini and Lazzini, 2016). The education system plays a central role in the social sphere (Miller et al., 1991). Starting from these premises and according with Foucault’s assumption about the decline of the universal intellectual and the role of intellectuals (Foucault, 1996), this article assigns to the educational system the role of cultural producer. Foucault identifies the problem confronted by the critical intellectual in

finding a way to deploy knowledge through a ‘patient labour of investigation’ (Foucault, 1984: 50) that highlights the contingency and fragility of the circumstances that have shaped current practices and theories.

According to Foucault (1997), power relationships have to be analysed in the context they occur by considering a series of subjective determinations such as functions – subject, institutions and actions. Based on the above, the evolution of the Italian education system can be represented as a series of relationships between it and the main related context variables: political; economic, social and cultural; legislative; and professional.

Previous studies have shown that the education system, with its structural and functional characteristics, has a decisive influence on its country’s economic, social and cultural development (Hanushek and Wößmann, 2007; Schultz, 1992). If there is a largely shared assumption that culture provides tools and habits and if there are assumptions that pervasively influence human thought and behaviour (Bruner, 1996), education can be considered the means through which a society transfers its values and cultural system to its youth. Education provides the appropriate instruments to understand the future, thus assuring a culture’s perpetuation (Collins, 1979; Morrow and Torres, 1995). Consequently, education can be considered a powerful and political process providing students with values, ideas and models that they will subsequently use to discipline themselves, remaining as close to them as possible (McPhail, 1999). Foucault (1972) considers every educational system ‘a political means of maintaining or of modifying the appropriation of discourse, with the knowledge and the powers it carries with it’ (p. 227). Foucault (1980: 52) argues that it is impossible for power to be exercised without knowledge, just as it is impossible for knowledge not to engender power. In Foucault’s (1980) framework, the concept of power is related to ‘the relationship between subjects as they act upon each other’, including ‘political structures, systems of rules and norms, techniques and apparatuses of government’ (p. 116). The power–knowledge relationship can be usefully employed for explaining how power operates within society, how mechanisms of power affect everyday lives. Foucault conceives power as a commodity, something becoming apparent only when it is exercised (Townley, 1993). ‘Power is not something that is acquired, seized or shared, something one holds on to or allows to slip away’ (Foucault, 1981: 94). Consequently, power is not associated with a specific institution, but with the practices, the techniques and procedures adopted. Power is employed at all levels, and through many dimensions including government (Townley, 1993). Foucault considers government to be not simply political institutions but the ‘conduct of conduct’, aiming to shape, guide or affect the conduct of some persons (Gordon, 1991). According to Townley (1993) government is dependent upon particular ways of knowing. Education becomes a decisive instrument of power. Schools exercise what Foucault defines as ‘epistemological power’ – a power to extract knowledge of individuals from individuals (Foucault, 2000: 83–84).

Adopting Foucault’s perspective, the article aims to analyse how the Italian government, in the expression of its political power, embraced institutional and structural measures, by means of the legislative context, to modify the Italian educational system and, specifically, how such changes have conditioned the study of accounting in different types of degree levels.

Because knowledge is a key element in the operation of power, the procedures applied to the formation and accumulation of knowledge cannot be considered neutral instruments for the presentation of the real. Consequently, the same institutions that produce and spread knowledge can be considered part of the ‘power-knowledge’ interrelation. Individuals have become both objects and subject in the development of knowledge (McPhail, 1999).

If education plays a fundamental role in shaping all aspects of communities in the same way, the structural changes resulting from economic, social and cultural development affect educational systems. Important social and economic changes that occurred in Italy and across Europe (Ramirez and Boli, 1987) during the period analysed gave rise to a growing need for new educational

requirements related to an increase in the demand for specialized and technical figures (Warner, 1987). Analogously, the important changes related to social and economic development required legislative intervention to regulate the functioning of different areas in society.

Of relevance during the period analysed are the legislative interventions by the State in matters of education. The regulation of the Italian education system was the task of the Casati and Gentile laws (Ferraris Franceschi, 2012a; Coronella et al., 2015).

Whereas the creation of technical secondary schools and institutes was primarily related to the educational needs generated by Italy's 1861 unification (Fiorentini, 1987; Tonelli, 1964, Toninelli, 1997), the birth of the high schools of commerce (*scuole superiori di commercio*) was attributable both to the teachers in the technical institutes and to the professional world. They considered the education of young people in administrative and commercial studies to be of decisive importance for the social and cultural development of the young state (Ferraris Franceschi, 2012a; Malatesta, 2002a). The learning of professions and more generally of accounting practices was initially entrusted to the professional schools and technical institutes (Coronella et al., 2015; Martini and Zan, 2001). The debate (Coronella et al., 2015; Sangiorgio, 1926) thus triggered between graduates from technical institutes and the high schools of commerce following the regulation of the accountancy profession was relevant (Law July 15 1906 no. 327 and RD 9 December 1906 no. 715), as was Giovanni Massa's contribution. Massa was an active supporter of the education system not only in the Italian Parliament but also in the accounting field and profession. He stressed the need for an education system aimed at instructing accountants on the relevance of their role in society (Massa, 1898). He submitted a draft law intended to rigorously regulate the profession. In 1906, with law no. 327, the accounting profession was created (D'Alterio, 2008). Under the law of 1906, the practice of accounting was asserted as an exclusive right of members of colleges or associations of accountants. The admission to the associations was allowed to the holders of an accountant's licence, to the teachers of technical institutes or to the graduates of a high school of commerce, after 2 years of practice and passing an examination (Vance, 1956).

The development of the education system contributed definitively to raising accounting to the level of a science. Its study became more intense and more fertile with the injection of new ideas (Antonelli and D'Alessio, 2014; Galassi and Mattessich, 2004; Iacoviello, 2005; Mattessich, 2008). Simultaneously, the debates were impassioned and the clashes between opposite schools of thought became increasingly heated (Zan, 1994). Zappa's contribution was decisive for the establishment of a new global science (Canziani, 2007; Zan, 1994) concerning the firm as a whole. That science was called *Economia Aziendale* (Concern Economics).

Finally, the context influenced the development of accounting just as accounting influenced the context (Hopwood, 1983). During the period analysed, the social and political context (power) had a significant impact not only on the evolution of the studies and theories of accounting (knowledge) but also on the design of the Italian education system. An example of such an influence can be found in the Italian model of corporative economics defined during the fascist period (1922–1945). The institutionalization of the corporative economy was the consequence of Mussolini's thought and supported by political exponents and fascist intellectuals (Guidi, 2000). Such a model had a relevant impact on the scientific debate and more generally on the orientation of the economic and business disciplines overall (Cinquini, 2007; Gentile, 2002). Moreover, the reform of the structure and content of the education system were both important and decisive (Scarangelo, 1962).

Economic development, businesses and the teaching of accounting

The period between the late nineteenth century and the beginning of the First World War brought political and social reforms, technological innovations, scientific progress, economic development

and artistic-literary change. France celebrated the Belle Époque with grandiose events, particularly the 'Exposition Universelle' (Scarpellini, 2008). Both the positive and negative aspects of this climate affected the various European capitals. Italy played a role during this new era, albeit later than other countries. Beginning in 1861, Italy was a state with non-univocal political traditions 'conducted' towards a unification that would – it was hoped – resolve the problems of development (Cipolla, 2005; Zamagni, 2008). The country inevitably demanded interventions from the centre aimed first at the formation of an 'intellectual capital' that would mould the figure of the entrepreneur, encouraging the development of a new mentality capable of grasping the value of technological innovations and scientific progress. The same mentality was producing substantial results in other countries and helped in overcoming the burden of the endemic scarcity of resources that characterized Italy (Canestri and Ricuperati, 1976).

The 'great transformation' brought about by the industrial revolution was gradual and slow (Scarpellini, 2008). There was growing social unrest in the country, which experienced industrial strikes. In addition, there was an increase in imports of products from abroad, resulting in an increased balance of payments deficit (Toniolo and Ciocca, 1978). Another factor that inhibited Italy's economic growth was related to the decision to fix the exchange rate with the pound sterling at ninety Italian lire ('quota 90') (Cohen, 1972). Quota 90 represented an upward revaluation of the average rate and became the cornerstone of Mussolini's economic policies after 1925 (Cohen, 1972). The idea underlying the currency stabilization was to allow Italian businesses and the government to borrow on the international markets (James and O'Rourke, 2011). This decision resulted in a sharp decrease in exports and a consequent contraction of industrial production. Nevertheless, the major attraction lay not simply in prestige calculations but above all – and yet again – in a lower cost of borrowing (Cohen, 1972). These factors might partly explain Italy's choices regarding the use of resources for the education system. It should also be remembered that the perception of the importance of education among peasants, workers, the bourgeoisie and the aristocracy was becoming increasingly clear. Indeed, there was a perceptible (but slow) appreciation not only of the working class (because of the greater economic resources available) but also of education, both as a reflection of the bourgeoisie's behaviour and because of the conviction of various associations that were advocating widespread education (Scarpellini, 2008). Therefore, on the one hand, primary education became increasingly widespread throughout Italy, stimulated by economic growth. On the other hand, there was a consolidation of the awareness that Italy's continued development could only be guaranteed if individuals received secondary and higher education. However, whereas primary schools were spreading throughout the country, and at exponential rates in the South, there were two tendencies in secondary and higher education: the few wealthy families in the South guaranteed their children a classical education (medicine and law), whereas young people in the North preferred the technical schools and institutes. This was likely because of the need (particularly in the Piedmont, Liguria and Lombardy triangle) to satisfy industry's specific demand for labour. It was not by chance that there was a proliferation of undergraduates and graduates at the Polytechnic University of Milan and the Polytechnic University of Turin (Canestri and Ricuperati, 1976).

Inevitably, state intervention occurred. That intervention involved, *inter alia*, an investment in education on two levels. First, the problem of illiteracy was confronted: the Casati (1859) law made primary education compulsory for 2 years; this period was extended to 4 years by the Coppino law – Law 15 July 1877 no. 3961. Attention was devoted to extending education that would lead the poorer classes towards agricultural and industrial progress, thus improving Italy's economy (Canestri and Ricuperati, 1976).

The second state intervention aimed to create intellectual capital that would mould the figure of the entrepreneur. This intervention would encourage a mentality of readiness to grasp the values of

the technological innovations and scientific progress that were producing great results worldwide and would confer on enterprises a longevity that would help them overcome Italy's persistent burden of the scarcity of natural resources.

The Gentile reform testifies to this development. However, as stated above, Northern Italy's need to satisfy industry's demand for labour resulted in the slow proliferation of technical education. Consequently, professors and teachers received a stimulus to educate students at the secondary and (even more qualifying) university levels (Canestri and Ricuperati, 1976).

Beginning in the post-unification period, the set of problems related to teacher recruitment became rather complex and problematic. The Casati law, whose structure was confirmed by Law June 23 1877 no. 3918, divided teachers into two orders: (1) holders (*titolari*), appointed by the King after an open, competitive exam; and (2) regents (*reggenti*), appointed among those who had the qualities to be appointed professors, but without the open competition exam or, alternatively, among those who would be eligible for the competition (Santoni Rugiu and Santamaita, 2011). To the previous typologies were added appointed teachers (*incaricati*), who, after three consecutive years of teaching in certain disciplines, could be elevated to the regents category (Scotto di Luzio, 2007).

During this period, therefore, the conditions for the development of studies in the field of economics were both created and intertwined. Legislative measures were taken for the imposition of school attendance in general and the introduction of accounting in schools in particular. In addition, there was a stimulus for a deeper study of enterprises and banks to be conducted from various perspectives. The technological investments that followed the first and second industrialization also influenced the accounting studies and theories that found their highest level in Fabio Besta's theories (1845–1922) (Galassi and Mattessich, 2004).

Moreover, the scholarly proposal to introduce the teaching of accounting at universities would contribute to the spread of the science, 'in that Accounting has its own particular problems to be studied and solved that can only be discussed in its own natural environment, that is, higher education' (Morelli, 1910: 151). Rational and scientific study is linked to the characteristics and the diffusion of the vast enterprise of the state from smaller public administrations to large private enterprises (Ghidiglia, 1910; Morelli, 1910). Nevertheless, the time was not yet ripe for a real inclusion of accounting in the Universities. The road towards that would be still long lasting and full of diatribes (Ghidiglia, 1911). A first step was the establishment of high schools of commerce but only in 1935, with the creation of the first faculties of Economics, was the process completed. In such a process, a decisive role was due, first, to Besta's theories of scientific accounting (Sargiacomo et al., 2012) and then to the birth of *Economia Aziendale* and its decisive recognition as a science by the Italian scientific community.

Lower and higher secondary education reforms in Italy, 1890–1935

Against this background, a series of important educational reforms was introduced. The changes that occurred in the whole Italian education system, and in technical education in particular, were the consequence of the succession of different political leanings. The transition from the legislative framework of the Casati law (1859) to the subsequent Gentile reform (1923) can be analysed throughout the Foucauldian relationship between power and knowledge. The political power exercised a significant influence on the educational institutions, and consequently on the system of knowledge developed. Knowledge was used as a mechanism of power: to act on young peoples' minds was considered an effective instrument to preserve and increase power. The Casati law was enacted on 13 November 1859 no. 3725 and remained in effect until 1923. It can be considered Italy's first set of laws regulating all aspects of education. Casati's purpose (power) was to develop

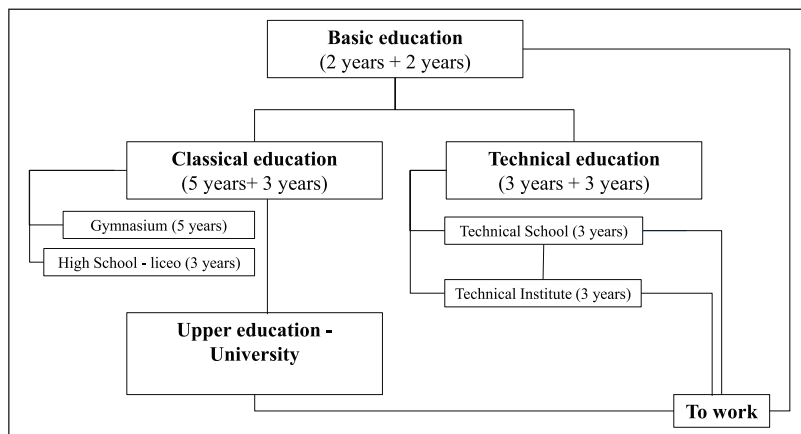


Figure 1. Casati's education system.

Source: Canestri and Ricuperati (1976); Cives (1990); Tonelli (1964); Royal Decree 13 November 1859 no. 3725.

the sense of belonging to the new born State acting on education (knowledge) to reduce the illiteracy rate by increasing the number of student and schools.

The Casati law divided the Italian education system into three levels (Figure 1):

- A first-level or basic education lasting 4 years.
- A second-level education divided into two branches: classical education and technical education. The first branch lasted 8 years, whereas the second branch lasted 6 years. Only classical education resulted in access to universities.
- A third-level or higher education committed to universities.

Technical education was subdivided into two levels: (1) a first-level or 'technical school' and (2) a second-level or 'technical institute'. The technical institutes were established by the Casati law and were initially placed under the control of the Department of Agriculture, Industry and Commerce (later named the Department of National Economy) and then transferred in 1878 to the supervision of the Department of Public Education. Within the law of 9 September 1860, the technical institutes were subdivided into four sections: (1) administrative-accounting, (2) agronomy, (3) chemistry and (4) physics-mathematics.

This subdivision was revised in 1864 by the Royal Decree (R.D.) 14 August 1864 no. 1354, when the Department of Agriculture, Industry and Commerce, wishing to confer a more markedly professional character on technical-scientific education, replaced the abovementioned four sections with 26 schools (special and comprehensive). These were reduced to nine the following year (R.D. 15 June 1865 no. 2372). The comprehensive schools included 'Commerce and Administration', whereas the special schools housed the school of 'Accounting'. Such a subdivision was of short duration because a few months later, with the law enacted on 18 October 1864, they were reduced to eight subject sections. With the law enacted on 30 March 1872, they were further reduced to generally three subject sections: (1) physics and mathematics, (2) agronomy and (3) commerce. Some institutes offered the possibility of a fourth industrial section.

By virtue of the same law, beginning in 1872, a fifth year of 'accounting' was instituted. The subject was complementary and optional with respect to the 'commerce' section. In 1876, then-Minister Coppino transformed the commerce section into 'commerce and accounting'. A further

modification occurred in 1885 with the R.D. 21 June no. 3454, when the section 'commerce and accounting' was subdivided into two curricula: 'commerce and private accounting' and 'administration and public accounting' (De Gobbis, 1935; Sangiorgio, 1926). The same R.D. no. 3454 provided that obtaining the technical diploma in commerce and accounting resulted in the titles of 'expert in commerce and private accounting' and 'expert in administration and public accounting', respectively. It was also specified that whereas the first diploma qualified a person 'for the exercise of the profession of accountant' and 'for the management of industrial and commercial enterprises', the second diploma qualified a person 'for the exercise of the profession of accounting' and constituted a qualification 'for the conferment of employment in the public administrations of the State'. In the last year of study, two kinds of final examinations were considered, one for the admission to institutions of higher education and the other one for the entry into apprenticeship for training accountants.

In 1889, with the R.D. 4 October no. 6484, the two curricula were merged, thus confirming the professional value of the new accounting diploma. Subsequently, with the law on 15 June 1931, no. 889, 'reordering of technical lower secondary education' subdivided the technical institutes into five sections: agricultural, industrial, nautical, commercial and surveying.

The Gentile reform was promulgated in 1923 with R.D. 6 May no. 1054 and remained a reference point for approximately 40 years. It caused a further accentuation of the gap between technical-professional and classical education. Gentile developed a rigorous, selective and elitist idea of school in an attempt to make the education system created by Casati more organic, providing it with a theoretical and philosophical basis. The Gentile law, inspired by the conviction that education should be directed primarily at those who would become part of the governing class, emphasized the rigid subdivision, at a secondary level, into a classical-humanistic branch and a technical-professional branch. Whereas the former was intended for the upper and governing class and gave access to universities, the latter was designed for the working class and, as asserted by the same Minister, couldn't 'give access to universities never' (Gentile, 1908: 202). As Gentile (1925) stated,

Secondary education is aristocratic by nature, in the excellent sense of the word: studies for a few, for the best [...] because they prepare to the disinterested scientific studies; studies which can concern only those who the talent earmarks de facto, or the census and the affection of the families address to the cult of the highest human ideals. (p. 24)

This idea of school fitted well with fascist ideals and above all with Mussolini's urgent need for a systematic school programme that would create the governing class that fascism lacked (Genovesi, 1998). Only from 1939, did the new Minister Bottai allow graduates from technical institutes to access University. The access was initially limited to three faculties: Law, Political Sciences, and Economics and Commerce (Cives, 1990).

The effects of Gentile reform disregarded the expectations of groups of scholars and accountants that, as early as the first Congress of Accountants, held in Rome in 1879, insistently demanded the introduction of accounting in the University Faculties of Law (Ghidiglia, 1911). The opposition to the introduction of accounting at university level originated mainly from the hostility of economists and jurists. They harshly rejected the idea of recognizing the scientific basis of accountancy, and considered it to be empirical art, restricting it to the mere data entry phase.

The Gentile reform increased the duration of the technical institute's course of studies by 1 year, making the duration of technical institute equal to the 4 years of classical-humanistic studies (Figure 2).

The course of study was reduced to two subjects: commerce and accounting and land surveying. According to the provisions of Art. 49 of the R.D. 6 May 1923 no. 1054, the section of commerce

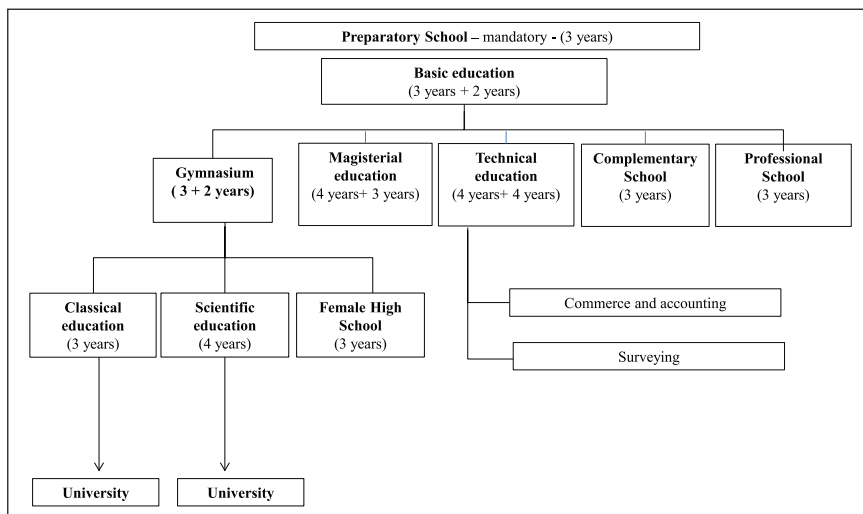


Figure 2. Italian education system in Gentile's reform.

Source: Canestri and Ricuperati (1976); Cives (1990); Tonelli (1964); Royal Decree 6 May 1923 no. 1054.

and accounting qualified a person for the 'exercise of administrative and commercial offices'. Such a specification meant, de facto, the abolition of the diploma for accountants, thus inflaming the tempers of teachers and representatives of the professional registers who saw the Gentile reform as prejudiced against an ancient profession. With the Gentile reform, moreover, the abolition of the diploma for accountants was not followed by the introduction of a diploma in accounting at the high-school level. The improvement of studies in economics was left to the high schools of commerce (university level), which awarded the degree of Doctor in Economic and Commercial Sciences. However, such a diploma did not provide specific preparation for the accounting profession (Rosati, 1923). In addition, students with a classical education would also have access to the course 'without any notion of accounting' (Bellini, 1924). Further reorganization of technical education was achieved with the R.D. 15 June 1931 no. 889, which merged the technical institutes and the commercial institutes, creating the 'commercial and technical institute'.

From the analysis of the history of the Italian education system between Casati law and Gentile reform emerges a certain coherence with the relationship between power and knowledge (Foucault, 1980). The governments (power) intervened in the education system (knowledge) to diffuse values and ideas coherently with their political leanings.

The study of accounting in the technical institutes

When analysing aspects of the study of accounting in terms of a timetable and curricula, it can be seen that the only significant changes in the courses of study were those caused by the Gentile reform in 1923. From 1892 to 1923, the technical institutes' teaching programmes and timetables remained unchanged, despite various parties' requests for modification (Bellini, 1933).

From 1892 to 1923, the didactic organization of the commercial and accounting section included the study of computing and accounting in class III of the technical school for 4.5 hours per week, whereas the technical institutes studied computing and accounting for 4 hours in class II, 5 hours in class III and 9 hours in class IV (Table 1). With the introduction of the Gentile reform in 1923,

Table 1. The study of accounting in technical schools and institutes 1891–1923.

Commerce and accounting section	From 1891 to 1923				Gentile Reform							
	Technical school		Technical institute		Technical school		Technical institute					
	Classes	Classes	Classes	Classes	Classes	Classes	Classes					
Subjects	I	II	III	IV	I	II	III	IV				
Calligraphy	3	2	2	0	2	0	0	0	2	0	0	0
General chemistry	0	0	0	0	0	0	0	0	0	0	0	0
Commodity chemistry	0	0	0	0	0	0	0	0	0	0	3	0
Book keeping and accounting	0	0	4.5	0	4	5	0	0	0	0	8	8
Law					3	4					7	5
Art	4.5	4.5	3	6			4	2	2	2		4
Political economy					3						2	4
Physics					5							
Geography	2	2	2	3	3							
Geography and history						4	4	2	2			
Italian	6	6	5	6	5	4	6	6	5	5	5	
Latin						7	7	6	6			
French	3	4	3	3	3	2	2	4	4	2	2	
German and English						3	5				6	4
Mathematics	4	4	3	6	5			2	2	4	4	
Mathematics and Physics												5
Natural sciences		2	2	3	3							
Natural sciences and geography										3	3	2
Financial sciences and statistics							4					4
History					3	3	2					
History and Rights and duties	2	2	3									
Strenography								1	2			
Total weekly hours	24.5	26.5	27.5	30	31	33	32	24	25	25	23	27

Source: Bellini (1933).

... omissis

On record and methods.

1 Definition of record; its function; its essential elements, legal nature, economic and statistical value of the record- Different classes of records and related graphic forms. 2. record on the owner - full and differential records of the owner- record of the agents and of the corresponding- agency summary record - full and differential records of the agency 3. records and values. 4. chronological and systematic diary of events - tools required - elementary records; complex records. 5. General theory of methods - Brief historical and critical notes on the origin of methods - their classification. 6. Simple records - their content and function. 7 Theory of bookkeeping: full balancing differential balancing. 8. Double entry method: analytical, summary, summary-analytical and mixed - Double synoptic system of recording: the books of account - Statmography. Opening records; recording of the typical administrative transactions in the major books of account- Verification Statements - Closure of records. 9. Logismographic method- The logismographic register single and double entry bookkeeping - The purpose of the permutations and compensation column - Recording typical administrative events in the logismographic journal - . Set of records in the journal; their shape - equivalence - numerical controls - accounting framework - minute.

Figure 3. Syllabus of 'general accounting' – section 'Commerce and Accounting' – class III – 5 hours for week, before Gentile reform.

Source: Royal Decree 2 October 1891 no.622.

which increased the duration of the lower course from 1 to 4 years, the study of computing and accounting was limited to a single higher course for 8 hours per week in classes III and IV.

The study of accounting was thus reduced by 6.5 hours per week at both levels (lower and upper) of technical education. There was a reduction of 2 hours (from 18 to 16 hours per week) at the level of the technical institute (upper level), with study concentrated in the final 2 years. In light of the long-standing diatribe between doctors of economic and commercial sciences and graduates from technical institutes, many saw this reduction in hours as manifesting an intention of government to restrict the accounting profession to doctors (Sangiorgio, 1926). The establishment from 1868 of first high schools of commerce and since 1902 of the first university had created graduate professionals, claiming, by virtue of their education, their superiority compared to graduates of technical institutes. This controversy resulted in the official recognition, by the decree 29 March 1929 no. 588, of a professional register which could only be accessed by graduates from universities. Almost a century later, in 1992 (law 17 February no. 206), a university degree was required to access the profession of accountant. It is possible to interpret this action as education being used as a decisive instrument of power. Adopting Foucault's perspective, the Italian government, in the expression of its political power, by means of the legislative context, had modified the Italian educational system and such changes had also conditioned the professional context.

Moreover, the overall number of class hours per week was reduced compared to the previous system and the lower course of the technical institute introduced the study of Latin (Table 1). Such innovations were welcomed by many who recognized in them both a response to an excessive intellectual burden for students and the introduction of a cultural element to technical education (Bellini, 1933).

The innovations introduced by the Gentile reform were not limited to the reduction in the hours of accounting study: they were also extended to a re-examination of the curriculum (Figure 3). The syllabi adopted in the technical institute were considered insufficient to prepare 'an accountant employed and even more a professional' (Barrabini, 1927).

The primary innovations included the 1923 elimination of the Cerbonian method of logismography from the accounting syllabus, the elimination of 'general accounting' as an independent

preparatory course for ‘applied accounting’ (with the division of its contents into another class), and the introduction of ‘new theories’ derived from the Zappian doctrine (Figure 3). Various authors were critical of these choices, including De Gobbis (1935), who harshly criticized the Gentile reform. De Gobbis (1935) censured the abolition of Cerboni’s method, recognizing ‘the novelty [...] its organic structure, and the genius of some of its mechanisms’, the role of ‘training for the minds of young people to the habit of thinking’ (p. 293) and the absolute merit of having stimulated the scientific debate among logismography’s primary opponents, which contributed to increasing the merit of Fabio Besta and the Venetian school (De Gobbis, 1935).

De Gobbis was equally critical of the decision to introduce Gino Zappa’s new theories to the accounting syllabus. Because De Gobbis considered those theories ‘new trends’, they would not have been representative of the prevailing doctrine. De Gobbis (1935) concludes his discussion by charging the compiler with a lack of objectivity and recognizing only one possible solution: a new draft by an ‘intelligent, competent and objective’ editor (p. 293).

In 1929, Gino Zappa became the first full professor of ‘*Economia Aziendale*’ in Bocconi University when Gentile was Professor of Philosophy and then vice-president of the same university (1930–1944).

Significant changes in the study of accounting were made by R.D. 15 June 1931 no. 889 (G.U. 17 July 1931) and 15 May 1933 no. 491 (G.U. 30 May 1933). Consequently, in 1931, the technical and commercial institute was created from the merger of the commerce and accounting sections of the technical institutes with the commercial institute. The technical-commercial institute was organized into administrative and mercantile sections, although individual institutes were given the choice of instituting additional course contents to fulfil special needs and take advantage of local opportunities. Issuance of a single diploma – that of accountant and commercial expert – was authorized.

With respect to the previous system, numerous changes were made with the R.D. 15 May 1933. The duration of the technical school (lower level) was decreased from 3 to 2 years and a supplementary, preparatory year for the higher technical and commercial institute was added.

The study of accounting at the technical and commercial institute saw an increase in the hours dedicated to study of the discipline. The total number of class hours was increased to 17 per week with an increase of 7 hours and 1 hour compared to the former commercial institute and technical institute, respectively. As a result of the 1933 reform, the study of ‘accounting and bookkeeping’ was distributed over the entire 4 years (Table 2). In contrast, the technical institute was limited to classes III and IV with 8 hours per week per class; the commercial institute was limited to classes I and III with 3 hours and class IV with 4 hours.

These important changes to the structure of the technical institutes and in the accounting programmes can be considered the consequence of the evolution of the political, social and economic contexts. The changes occurred in the period 1892–1933 in the technical schools and institutes. Whether these changes were considered to involve the curriculum (subject and hours) or the specific syllabuses can be considered a direct effect of the governments’ different logic and ideologies. The Gentile reform’s introduction of the Latin language and facilitation of the study of law and German-English languages are intervention strategies coherent with fascist ideas. Likewise, the introduction of new accounting theories (Zappa’s theories) can be considered an effect of the need for renewal and cutting ties with the past. According to Foucault, knowledge can become a means of social control used by the government to manage populations (Foucault, 1991). As Foucault (1980) observes,

[...] The exercise of power itself creates and causes new objects of knowledge to emerge and accumulates new bodies of information. [...] The exercise of power perpetually creates knowledge and, conversely,

Table 2. Subjects and timetable Technical Institute ex R.D. 15 May 1933 no. 491.

Subjects/subject area	I		II		III		IV	
	Administrative	Mercantile	Administrative	Mercantile	Administrative	Mercantile	Administrative	Mercantile
Italian literature	3	3	3	3	3	3	3	3
History	3	3	3	3	-	-	-	-
Mathematics	3	3	3	3	2	2	-	-
Physics	3	3	-	-	-	-	-	-
Natural sciences	3	3	-	-	-	-	-	-
General and commercial geography	-	-	2	2	2	2	3	3
Chemistry	2	-	-	3	-	-	-	-
Study of commodities	-	-	3	-	-	4	-	4
First foreign language	2	3	3	3	-	-	-	-
Second foreign language	3	4	4	4	4	4	4	4
Book keeping and accounting	3	4	3	4	5	4	6	4
Commercial, transportation and customs technology	-	-	-	-	3	2	2	4
Legal institutions	-	-	3	3	4	3	5	3
Political economy, elements of financial science, statistics	-	-	-	-	4	4	4	4
Calligraphy	2	2	-	-	-	-	-	-
Religion	1	1	1	1	1	1	1	1
<i>Total weekly hours</i>	28	29	28	29	28	29	28	30
Stenography (optional)	2	2	-	-	-	-	-	-
Typewriting (optional)	-	-	2	2	-	-	-	-
Physical education	2	2	2	2	2	2	2	2

Source: Royal Decree 15 May 1933 no.491.

knowledge constantly induces the effects of power. [...] It is not possible for power to be exercised without knowledge, and it is impossible for knowledge not to engender power. (p. 52)

It can be argued that the evolution of Italy's education systems is coherent with Foucault's idea that power and knowledge do not exist independently but instead are coterminous.

The study of accounting in the high schools of commerce

The complex experience of the technical institutes, the establishment of private professional schools monitored by the Department of Agriculture in Italy's cities (first in Milan), the demand for new services and professional skills, and above all, the awareness of local institutions led to the institution of higher schools of commerce. These schools belonged to the upper level education.

The motivation for establishing commercial high schools was twofold. First, students with a diploma from the technical institutes and private schools were denied access to a university education. Second, the first National Congress of Accountants (1879) demonstrated the need to guarantee the training of accountants with the ability to perform accounting's delicate and important social functions.

Furthermore, considerable state intervention was required to stimulate economic development. There was a strong conviction that public education, especially technical-commercial education, could be a decisive factor in stimulating such development (Chatterton and Goddard, 2000; Toniolo and Ciocca, 1978). There was a general opinion that the education provided by the technical institutes was no longer adequate for the development of the new state (Toniolo and Ciocca, 1978). The Casati rules did not allow the establishment of chairs in accounting in universities until R.D. 10 September 1923 no. 210. Only state accounting was justified by the presence of a special law dedicated to it. Simultaneously, the admission of accounting in universities was delayed by the mentioned reluctance of a part of the scientific community to recognize the field's scientific role (Zorli, 1924). It can be believed – coherently with Foucault's idea – that power and knowledge do not exist independently but are coterminous.

Substantial innovations were introduced by R.D. 10 September 1923 no. 210, which in addition to the four traditional faculties (Law; Mathematics, Physics and Natural Sciences; Medical Sciences; Language and Philosophy) allowed the establishment of 'faculties for special purposes'. The first faculties of economics and political science were developed, and there was a desire to include accounting in their course of study (Vance, 1956).

The University of Macerata was the first university to introduce accounting; a course in 'public and private accounting' was offered. Vincenzo Masi (1924), an active exponent of the scientific status of accounting, harshly criticized such a decision. He commented on it as follows:

Under the species of public and private accountancy, accounting has made its entry in an University of the Kingdom! Quiet entrance, stealthy, not a triumphal entry! It has been received by the back door; not for the main entrance. Not festoons on the front door, on the lintel of the big door. No music, no flowers, no songs. Unbeknownst entry of all and perhaps at all remained unknown. It came as a servant, not as Lady. Rising from the figures you entered for adding [...] an adjective! (Masi, 1924: 489)

The idea that contributed most to the promotion of higher education in the accounting field was the establishment of a higher education institution separate from the universities. This was a desire expressed by many and a real necessity because of the low opinion that university professors of the time held of the basic education provided by the technical institutes (Ferraris and Franceschi, 2012a; Longobardi, 1927b).

Table 3. The establishment of the Higher Schools of Commerce in Italy (1860–1929).

Date/year	City
6 August 1868	Venice
22 May 1884	Genoa
11 March 1886	Bari
29 September 1902	Milan – ‘Bocconi’
5 May 1906	Rome
7 November 1920	Trieste
5 October 1920	Naple
3 December 1922	Palermo-Catania
4 November 1926	Florence
10 October 1929	Bologna

Source: Ferraris Franceschi (2012b).

The first Italian high school of commerce was instituted in Venice (Table 3) with R.D. 6 August 1868 no. 4530 and 15 May 1870 no. 5671 (Berengo, 1989). With its three departments – commercial, teacher training (in technical and economic disciplines) and consular – the school would serve as an example for schools that would be developed later.

In 1881, the project to create a high school of commerce in Genoa was initiated. In 1884, with R.D. 22 May no. 2351, the statute was approved and the first board was instituted (Massa, 1992). Activity began in 1886 (Cantagalli, 1996). The R.D. 11 March 1886 no. 3746 approved the institution of the Royal High School of Commerce of Bari, which would be directed by the illustrious economist Maffeo Pantaleoni (Beltrani, 1907).

In 1902, the commercial university ‘Luigi Bocconi’ of Milan was established as an autonomous institution under the authority of the Department of Education (Cattini et al., 2006). The high schools of Rome and Turin were established in 1906. In Trieste, a ‘school of commerce’ was instituted under the Habsburg government; in 1920, after the First World War, that school became the ‘Royal Higher Institute of Commercial Studies’ (Engwall and Zamagni, 1998).

Initially, the diploma issued by the high school of commerce was not legally a degree certificate. Instead, it was simply recognized as equivalent to the diploma issued by the commercial section of the technical institute.

It was only in the early years of the twentieth century that the high schools of commerce of Venice, Genoa and Bari were authorized to issue a ‘special degree diploma [...] equivalent to the ordinary higher academic levels’ (R.D. 26 November 1903 no. 476).

Finally, in 1915, the National Council for Public Education (*Consiglio Superiore della pubblica istruzione*) recognized the equivalence of all of the degree diplomas awarded by the higher institutes with the qualification of ‘doctor in economic and commercial sciences’ and, subsequently, ‘doctor in economics and commerce’. In 1933, the high institutes came under the jurisdiction of the Department of National Education; the R.D. 31 August no. 1592 approved the didactic autonomy of the Italian universities and high institutes.

In 1935 (R.D. 28 November 1935 no. 2044), the Minister of National Education, Cesare Maria De Vecchi, decreed that the commercial high schools should be attached and integrated into the universities as the faculties of economics and commerce. The measure did not affect the Bocconi, which remained a free university. Distorting the provisions of the Decree of 1933, universities and institutes’ freedom to determine the order, typology and content of their courses was removed. Such a reduction in the sphere of autonomy of universities can be interpreted as an evident intent

Table 4. Mandatories and optional courses for the degree in Economic and Commerce in 1935.

Mandatory courses		Optional courses	
1	Private law	1	Maritime law
2	Public law	2	Industrial law
3	Commercial law (biennial)	3	Administrative law
4	International law	4	Civil and commercial procedure
5	General and financial mathematics	5	Demography
6	Methodological and economic statistics	6	Statistics for bank and insurance industry
7	Corporative economics (biennial)	7	Economic and finance for insurances companies
8	General theory of the economic equilibrium	8	Comparative labour law
9	Financial law and science of finance	9	Corporative law
10	Land surveying economics	10	Technique of navigation
11	Political and financial economics	11	Technique of international commerce
12	Economic history	12	Technique of land products commerce
13	Economic geography (biennial)	13	History of geographical discoveries
14	General and applied accounting		
15	Commercial and industrial technic		
16	Merceology		
17	Foreign language (French or Spanish)		
18	Foreign language (English or Dutch) (triennial)		

Source: Royal Decree 28 November 1935 no. 2044.

of control by government (power) on all the features of higher education (knowledge). To earn a degree in business and economics (duration of four years), it was expected that a student would pass 18 mandatory courses (annual and biennial) and a series of at least three complementary courses (Table 4).

Among the mandatory courses to earn the degree in Economics, classes of clear fascist orientation were introduced: corporative economics and corporative law. This can be considered to be further evidence of how and how much the political ideals, direct expression of governments (power), interfered with education (knowledge).

Access to the new faculty of economics and business was permitted to students both from the classic and scientific lyceum and from technical institutes. After earning a degree, it was possible to obtain a teaching diploma called '*magistero*' in economics and law or in accounting (Table 5). The duration of the course was 1 year. The degree in business and economics was the only title of admission permitted. Graduation was subject to passing exams in all eight fundamental courses. Furthermore, the performance of a practical lesson was required.

Although the road had been a long one, the aim of raising economic-commercial studies to the university level had been achieved both in form and in substance. It should be noted that this aim, strongly desired by many and pursued for so long, had not been generally shared. Before the first National Congress of Accountants there had been votes favouring an award of the accounting diploma and qualification at the conclusion of the university course; the same vote occurred at the second National Congress in 1885 and at every subsequent congress in the following period (Coronella et al., 2015). Nevertheless, there was a somewhat combative minority – defending the interests of the teachers at the technical institutes, most of whom were not graduates – that opposed the university qualification for accountants (Elia, 1924; Sangiorgio, 1926).

Table 5. The 'Magistero' in accounting.

1	Corporative economy
2	Administrative law
3	Processual civil law
4	General and applied accounting – Concern Economics
5	Corporative law
6	Commercial technique
7	State accounting
8	Administrative techniques for industrial companies

Source: Royal Decree 28 November 1935 no. 2044.

Discussion and conclusion

This study has responded to the call for an extension of the research on accounting education in different contexts and ages. Drawing on Foucault's concepts, it has been shown how the State through institutional and structural measures has modified the Italian education system affecting the study of accounting in different types of degree levels. By focusing on the types and structures of accounting degree programmes, it shows how power has impacted on knowledge.

This article has used a critical historical accounting framework to examine the context (political, cultural and social) in which the Italian education system has evolved to provide a basis for determining how the field has developed (Burchell et al., 1980; Carmona, 2004; Carnegie and Napier, 1996; Hopwood, 1978, 1983; Miller and Napier, 1993; Miller et al., 1991; Paisey and Paisey, 2011). In adopting a critical historical accounting framework, organizations and institutions should be viewed as fundamentally interrelated and interdependent, and the links among them should be viewed as mutually constitutive (Chapman et al., 2010). The characteristics of the educational institutions, by their internal dynamics, curricula and syllabuses, and by the teachers' personalities, have moreover influenced the development of accounting theories. Additionally, the educational system exercises considerable influence on students and graduates through the systems of ideas and knowledge that they bring to society, on the entrepreneurial and administrative mentality and culture and, consequently, on the formation and development of conceptions that contribute to developing various disciplines.

In analysing the evolution of the educational system during the periods of the Casati law and Gentile reform, this article highlights how a Foucauldian relationship between power and knowledge can be retraced, providing a basis for an insightful analysis of the manner in which power operates through education.

Adopting Foucault's perspective, this article has shown how power has operated within Italian education in the creation of particular systems of knowledge through the institutionalization and organization of technical schools and institutes and through teachers' work to spread knowledge.

The history of Italy's overall education system seems to be coherent with the Foucauldian power–knowledge relationship. Education (knowledge) was used by governments (power) to impress upon society an orientation coherent with their ideologies. Whereas the main objective of the post-unification period – Casati law – can be retraced to 'make the Italian people' into a strong middle class, in the fascist age – Gentile reform – particular attention was devoted to the formation of a new managerial class inspired by fascist ideals. In both cases, education was considered the main site of civic transformation (Cives, 1990).

During the liberal age, the birth of 'the Italian people' (Hom, 2013) was essentially based not only on the reorganization and development of the entire education system but also on the creation

of 'human capital' that would bring about a consolidation of the sense of belonging to the unified state (Coronella et al., 2015). Consequently, with the Casati law, the State by way of government (power) attempted (in 1859) to first reduce illiteracy by making primary education (knowledge) compulsory for 2 years, a requirement that the Coppino law (1877) later increased to 4 years. The Casati law established the technical schools and institutes required to undertake careers in the public sector, to work in industry and commerce or to conduct agricultural activities. Making particular reference to the technical institutes, the introduction of physics and mathematics into the curriculum enabled enrolment in the faculties of physical, mathematical and natural sciences, representing the first step towards recognition of the educational benefits of technical-scientific disciplines for students in the wake of the humanistic disciplines of other faculties (Cives, 1990). The establishment of technical education is consistent with the liberal ideal of education based on both empowerment of public schools and access to those schools regardless of gender or status.

In contrast, fascist authority enabled Gentile reform, which became one of fascism's most decisive and lasting achievements. Education was an area in which fascism implemented some of its most effective and lasting interventions, including the centrality of classical education and the historical approach to the study of both philosophy and ancient and modern languages. The educational system was used by the fascist regime as a tool to indoctrinate young people (Betti, 1984).

Whereas the Casati law was conceived in a context that was largely rural (and highly illiterate) with the aim of enabling citizens to participate in a liberal democratic system (Canestri and Ricuperati, 1976), the Gentile reform considered education a process aimed at both creating a patriotic mind and heart and preparing students for the manifold responsibilities of life (Gentile, 1975).

The influence of fascist ideology and its aim of indoctrinating young people are also evident in the content of academic courses in the faculties of economics. As shown in Table 4, corporative economics and corporative law were added to the mandatory and optional courses for the degree in Economics and Commerce beginning in 1935.

The article, covering a period of approximately 50 years (1890–1935) and analysing primary sources, shows how governments shaped the Italian education system based both on their objectives and on various economic and social needs. The increasingly broad presence of accounting and commercial disciplines in technical schools and institutes, along with their fruitful insertion into higher education (high schools of commerce and universities), has been the result of changing times. In addition to the need to increase literacy, it was essential to increase the technical skills that would transform Italy from a rural into an industrial economy. The Italian educational system has profoundly influenced the study of accounting through secondary and higher education (Ferraris Franceschi, 2012b). According to Canziani (2007), the development of accounting studies in Italy was positively conditioned by the improvement of technical education and was substantially accelerated with the establishment of the first schools of commerce, which then became faculties. Thanks to these schools and universities, the core of the innovative specialized disciplines underwent a grandiose evolution: the study of accounting developed and was raised to a scientific level. The meeting between educational institutions and the world of ideas has been fruitful, leading to the development of mutual relationships. Progress in accounting education has stimulated cross-fertilization between theories and teachers (Ferraris Franceschi, 2012b).

From the technical institutes and high schools of commerce, teachers, including great scholars of the calibre of Fabio Besta and Gino Zappa, spread their scientific message, which fostered the study of accounting and contributed to the formation of 'schools' of thought from which originated a new generation of Italian scholars (Antonelli and D'Alessio, 2014; Cinquini and Marelli, 2007; Galassi and Mattessich, 2004).

The doctrine of Fabio Besta, centred on the concept of economic control (Mattessich, 2008), was compatible with a rural economy (Mio and Saccon, 2015). Italian industry was mainly centred

in Northern Italy and had an economic impact unlike that in other European countries (Scarpellini, 2008). His doctrine primarily responded to the needs of small businesses and was based on the interpretation of periodic income as a specific change of capital (Mattessich, 2008). Besta doctrine spread in the universities through the teaching and research activities of its faithful disciples (Mattessich, 2008; Mio and Saccon, 2015).

In the first half of the twentieth century, the Zappa doctrine became dominant. Gino Zappa was very attentive to changes caused by industrialization. He believed that traditional accounting was inadequate for interpreting and understanding the complexity and changing nature of the early twentieth-century economic environment (Amaduzzi, 2004). Zappa adopted an innovative and holistic vision of the firm, resulting in the birth of Concern Economics (Amaduzzi, 2004; Capalbo and Clarke, 2006; Viganò and Mattessich, 2007; Zambon and Zan, 2000).

The examination of the processes of transmitting accounting knowledge through the creation and life of educational institutions, professional schools, state technical institutes and high schools of commerce separate from the universities has provided us with effective guidelines for outlining the process of cultural and scientific development that occurred during those years.

One final observation may be appropriate. The issue discussed in this article has only begun to open up new possibilities for the study of the relationship between accounting and education. The wide variety of aspects and issues that had to be addressed, which would add considerable length and complexity to the historical period examined, led us to provide an account limited to a precise line of research focused on the contribution made by technical education (schools and institutes) and high schools of commerce to the process of developing accounting studies. The topic analysed is strictly related to interesting collateral subjects that require adequate space and attention. Some topics have already been investigated by the literature (Antonelli and D'Alessio, 2014; Cinquini, 2007; Cinquini and Marelli, 2007; Galassi and Mattessich, 2004; Zan, 1994), whereas others appear unexplored or partially explored (Coronella et al., 2015; Lai et al., 2015). Future lines of research can both address the study of the educational system's contribution to accountants' professionalization strategies (Coronella et al., 2015) and analyse the content of the first syllabus in accounting and the contributions made by the first teachers of accounting in disseminating and developing accounting theories among young people.

Acknowledgements

The authors are grateful to the reviewers and the guest editors for their constructive comments and helpful suggestions on earlier drafts of this article.

Funding

The author(s) received no financial support for the research, authorship and/or publication of this article.

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