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UNIVERSITIES AND GEN Z: AN EXPERIMENT ON HOW TO CRAFT CONTENTS AND TOOLS FOR A "FIT-FOR-PURPOSE" COURSE

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Abstract. This paper proposes a framework for designing university courses that are tailored to the needs and preferences of Generation Z students. Traditional approaches to course design are often criticized for being overly theoretical and detached from reality, which is exacerbated by the unique characteristics of Generation Z. To address these issues, the proposed framework reverses the traditional training cycle by starting with an analysis of the needs and preferences of Generation Z students. The framework emphasizes the importance of enhancing the student experience by using a multimodal approach that includes ad-hoc content, flipped classes, massive open online courses (MOOCs), gamification, simulating reality in a trading room, and chatbots like ChatGPT to engage students and fill in knowledge gaps. The paper also presents a case study of a finance course designed using this framework, which resulted in positive reactions from students, increased interest in the subject matter, and changes in behavior.

1. Introduction

Financial literacy can contribute to global economic growth and sustainable development by improving financial inclusion and well-being outcomes. Improving financial literacy levels around the world can also help reducing socio-economic gaps and inequalities across and within countries, thus building to more inclusive societies for all. Financial education policies can support the achievement of broader economic and social outcomes by strengthening consumers' resilience to major financial shocks. Significant progress has been made globally on financial education, but many more challenges lay ahead including the digitalization of finance, finetuning interventions to reach vulnerable audiences and addressing the implications of demographic changes (*OECD, 2018*). Due to the loss of human capital because of the low birth-rate, in the next years, a series of academic courses and universities are at risk in Italy. This is another factor affecting the social and economic sustainability of education system. Finally, the lack of financial literacy can be overcome thanks to innovation in teaching methodology, in order to propose students belonging to the so-called Z Generation methods better fitting with their learning style and needs.

Targeted financial inclusion and financial education policies help bridge inclusion gaps by directing support where it is needed most, thus contributing to inclusive growth and to more sustainable societies around the world. The digitalization of finance has the potential to improve levels of financial inclusion, at the same time, digital delivery methods provide new ways of achieving desirable financial education outcomes.

Universities – in their role of institutions in charge of high-level training - cannot shy away from offering courses in line with students 'peculiarities, backgrounds, and needs. Unfortunately, despite the effort made, the assessment taken at the end of the course often expresses a general discontent: from the students' perspective university courses results as poorly engaging for a variety of reasons including the content, tools and teaching methods defined a priori without a real involvement of participants.

According to Kirkpatrick & Kirkpatrick (2006) a course that can interest and actively engage students – and thus positively affect reaction – begins with an analysis and evaluation of the needs. As a matter of practice, course programmes as well as delivery methods and tools are communicated at the beginning of classes and remain unchanged for several years without methodical and continuous fine-tuning activities. As we make these points, it should not be forgotten that student satisfaction is element of crucial interest for a variety of reasons: it represents a factor in evaluating the instructor's teaching effectiveness (*Ronfeldt, 2012*), it can contribute to student retention and can also be used as one way of assessing the faculty's suitability to prepare the student for the world of work (*Howell & Buck, 2012*).

In this paper we propose a framework based on reversing the Universities' training cycle, starting from the analysis of the needs of the students who are currently going through the university process to define contents effective in healing the knowledge and skills gap surveyed. We consider the needs of generation, intended not simply as a question of age. According to Pilcher (1994) social generations are "*cohort members who have similar attitudes, worldview and beliefs grounded in their shared context and experiences accumulated over time*" (pg. 482). Students who are now taking college courses belong to the Z Generation (students born 1996-2010). They have easy, facilitated access to technology and are characterized by an instant ability to retrieve and transmit information. This generation's identity has been shaped by the digital age, climate anxiety, a shifting financial landscape and Covid 19 pandemic.

Gen Z generally has its own formative experiences distinct from those of previous generations. According to McKinsey (2023)[1] they are generally:

- more pragmatic, with both complex idealism and worries for the future. Gen Zers dream of personal career fulfillment but expect economic problems, sincethey also

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[1]

https://www.mckinsey.com/~/media/mckinsey/featured%20insights/mckinsey%20explainers/what%20is%20gen%20z/what-is-gen-z.pdf

living in a time marked by rapidly rising inflation and financial woes;

- less positive life outlooks, with lower levels of emotional and social well-being than older generations;
- more interested in belonging to an inclusive, supportive community;
- more socially active, advocating for what they believe on social media;
- more individualistic, with a stronger sense of personal expression.

It is unthinkable that these features do not influence their learning style (*Bouilheres & McDonald, 2020*).

Among several courses, we decided to focus on a finance course. Gen Zers grew up during the recession of 2007–2009, during which they witnessed adults experiencing financial trouble and employment instability. As they began moving into adulthood, Gen Zers aimed to avoid the difficulties that plagued the generations who preceded them. Finance plays a central role in the life of everyone as well as in the curriculum of a Faculty of Economics where it is given several credits. We also very often see young people very interested in experimenting with new teaching modes other than traditional ones and juggling new technological tools with ease. It is for these reasons that we chose these core subjects as the object of our research.

Given these considerations, we argue that to design "fit-for-purposes" courses on finance that can interest and engage Gen Z beforehand it is fundamental to understand, evaluate and analyse its money management perspective (MMP). This analysis and evaluation may represent an important first step in the Training Needs Analysis (TNA).

Money management refers to the ability to understand, analyse and handle personal wealth and involves skills such as budgeting, spending, savings and investing (*Xiao et al., 2009*). Being an attitude, it is personal and as such varies from individual to individual and on a broader and more general level from generation to generation.

Given that the absence of money management skills could have negative effects on an individual's life (Knight & Knight,

2000) our research aims to understand the role that universities can take in developing and consolidating the Gen Z's MMP by offering a multimodal approach to bring it closer to the world of asset management. This study is based on the same database used by Lippi and Rossi (2022) through the administration of a questionnaire that together we constructed and validated.

The paper is organised as follows: the first paragraph highlights the need to change learning tools and methods according to Gen Z way to line, while the second analyses the MMP based on recent literature and the third presents the research method. The fourth proposes the findings that confirm the validity of our study while with the fifth chapter we suggest a "fit-for-purpose approach" to design a finance course. Some limits and suggestions for future research are discussed in the final paragraph.

2. *The evolution of learning tools and methods and the "student experience"*

According to Kirkpatrick & Kirkpatrick's model (2006, p.21) there are four levels for evaluating and analyzing the results of educational and learning programs where each successive level represents a more precise measure of effectiveness (reaction, learning, behavior, result). At the end of a university course (graduate or undergraduate), the most frequently analyzed level is reaction and in this regard, student satisfaction is paramount for a variety of reasons: it represents a factor in assessing the instructor's teaching effectiveness (*Archbald & Porter, 1994; Ronfeldt, 2012*), it can contribute to student retention (Marks et al., 2016) and be used as one way to assess faculty adequacy to prepare the student for the world of work (Howell & Buck, 2012).

Final evaluations collecting course satisfaction represent a critical moment for the traditional teacher: general dissatisfaction, high dropout rate, modest engagement are the three elements that recur most frequently (*Levander, 2022; Chalmers, 2011*). This is followed by final exam results that reflect neither the teacher's expectations of the class nor the expectations of the student who must concentrate all the efforts in a single final test (*Mehar & Jassar, 2020; Borch et al., 2020*). This mismatch of expectations

is most likely also attributable to the contrast that is traditionally proposed between the student and the teacher who interface respecting strict and predefined patterns, tools, and roles (*Wiechowski & Washburn, 2014; Nairz-Wirth & Feldmann, 2017*).

Traditional teaching also proved to be poorly effective in pandemic times where classroom conditions for face-to-face lectures could not be perfectly recreated: the mediation of the technological tool proved useful and essential but not fully effective (*Fernández-Castro, 2022; Ma et al., 2022*).

Moreover, current university progression systems impose a very high quality of research on faculty, which can often be at the expense of time devoted to teaching (Smith & Walker, 2022). For this reason, the time dedicated to course design and delivery is limited, or at least not commensurate.

Certainly, greater and mutual benefits can be found in the adoption of blended methods and tools. In general, blended learning integrates situations where online, physical and working situations are included and teachers and learners are experientially involved (*Sowl et al., 2022; Nayar & Koul, 2020*)

Zimmerman (2008) and Zimmerman & Schunk (2008) observed the circular causality between the motivation and behavior of the students and the feedback they receive from their instructors. In turn the students' feedback and performance influence the instructor's effort, persistency, and motivation for teaching in a reciprocal way (*Arjomandi et al., 2021; Barnett, 2011*).

Some innovations in pedagogy have occurred and produced a variety of alternatives to traditional lecture-based teaching formats (*Konst (e. Penttilä) & Kairisto-Mertanen, 2020*). On the other side, Gen Zs are recognized as the first generation to regard the physical and digital world as borderless (*Garver et al., 2022; Szymkowiak et al., 2022*), actively involved in the definition of their learning preferences (*Mijatovic, 2020; Khan & Al-Shibami, 2019*) and with a preference for technologically mediated communication and interaction ("*personal meetings are also important to them, however, keeping the online contacts have an equally important role*", *Csobanka, 2016*, p. 68).

The characteristics of Generation Z learners will certainly affect education. Therefore, Universities need to change their teaching–learning strategies, which must find a balance in blending. They need to be more visual, interactive, with information available instantaneously and, most important, incorporating technology and social media/networking.

Technologies are also useful to increase students'engagement in learning processes definition. They could become active participants through collaboration with teachers in designing their own learning experience. According to constructivist learning theory, which says learners construct knowledge and meaning from lived experiences rather than from passively taking in information, students'involvement in co-creation processes favors meaningful learning opportunities by honoring student voices. That's why our research design used a questionnaire with a group of questions addressed to investigate students lived experience, preferences, and their family habits about money management. If they are asked to co-create but not then given space to reflect on how it went, they may feel dejected. Such reflections help to strengthen students' metacognitive skills while also providing useful feedback for the teacher (*Bovill, 2020*).

While the literature has written quite a bit on benefits (*Burvill et al., 2022; Karashash et al., 2022*) and tools (*Al-Samarraie & Saeed , 2018*) still little and very fragmented research has been carried out on appropriate contents for Generation Z.

The principal limitation of blended methods is the broader interest with respect to tools rather than content (*Viebig, 2002*). As a matter of practice, course programs (contents), delivery methods and tools are communicated at the beginning of classes and remain unchanged for several years without methodical and continuous fine-tuning activities.

As in business affairs it is possible to analyze the "customer experience" and in companies the "employee experience", we believe that even the "student experience" can be valued and considered as a landmark in course design (*Staddon, & Standish, 2012; Jones, 2017*). In a constantly changing world, course content cannot anachronistically remain unchanged.

Our idea is based on the fact that a "fit-for-purpose" course that can interest and actively engage students and teachers - and thus positively affect reaction - finds its foundation in the analysis and evaluation of the needs. Here the first step of the Training Needs Analysis (TNA) (*Moore & Dutton, 1978; Clarke, 2003*) takes the form of a questioning moment carried out to gather information. Our research uses finance courses at a university as a case study and students enrolled in a Faculty of Economics as the sample for analysis. The objective is to understand what the gaps of students belonging to Gen Z are when it comes to managing money, their savings and investments to be able - as a university - to offer appropriate content and suitable tools.

3. Unpacking and analysing the MMP

To define suitable course content, it is first necessary to identify the knowledge and skill gaps of the participants (*Cilliers, 2017*). For this reason, we argue that it is of paramount importance for the purpose of designing a Finance course to know the gaps of the participants, in our case members of Generation Z. We therefore start with understanding their attitude to money management.

Many studies demonstrate that the attitude to money plays an important role in determining the level of financial wellbeing of an individual. The literature has highlighted several parameters that can influence the MMP, such as age (*Bamforth & Geursen, 2017*), gender (*Haque & Zulfiqar, 2016; Pahlevan-Sharif et al., 2020*), income, financial education (*Bernheim et al., 2001; Boon et al., 2011; Hogarth & Hilgert, 2002; Kaiser & Menkhoff, 2017; Lusardi et al., 2010; Lusardi & Mitchell, 2014; Varcoe et al., 2005*), the family role (*Danes et al., 2007; Gudmunson & Danes, 2011; Jorgensen & Jyoti, 2010; Xiao et al., 2009*), and psychological factors such as self-efficacy and self-regulation (*Tang & Baker, 2016*).

Let us examine these factors in detail:
-   young people have limited resources and no experiences, irregular incomes, limited or poor credit history and – given the current scenarios – must make

decisions under uncertainty (*Bamforth & Geursen, 2017*). Age reflects all these features;

- gender issues can have an influence on savings management style in that males and females have different beliefs about money (*Pahlevan-Sharif et al., 2020*). Moreover, recent studies have confirmed past analyses - such as those by Graham et al. (2002) and Haque and Zulfiqar (2016);

- proper financial literacy can help students making adequate financial decisions *(Bernheim et al., 2001; Varcoe et al., 2005*). Financial literacy, according to Hogarth and Hilgert (2002) and Wagner (2019) is the ability to juggle within personal financial choices based on developed knowledge and skills. The link between financial literacy and personal financial behaviour has shown a positive correlation in most research (*Boon et al., 2011; Lusardi et al., 2010; Lusardi et al., 2010; Xiao & Xin, 2022*)

- individuals exist within, and are influenced by, a social environment including family members, co-workers, friends, and others (*Lyons et al., 2006; Xiao et al., 2009*). The social cognitive theory asserts that learning through the experiences of credible others ("observational learning") is the way of developing behaviour. The guidance provided by parents represents a very impactful force, both positive and negative, on the young person's behaviors. Families prepare young adults for their financial future (Danes et al., 2007; Danes, 2011; Jorgensen & Jyoti, 2010) and this influence persists over time. Gudmunson and Danes' (2011) conceptual model of family financial socialization processes and outcomes contended that most family financial socialization occurs implicitly via family interaction and relationships, instead of through purposive or overt teaching, modelling, or practice.

- gender differences matter in the interaction between parents and young adults regarding financial matters.

Barboza et al. ([2016](#)) and Loibl & Hira ([2020](#)) found that women freely discuss financial issues with their family members while men face more resistance and difficulties in opening up. This ease of comparison enables them to enrich their knowledge and enfranchise their decision-making processes and develop responsible financial behaviour;

- according to Huston ([2010](#)) an appropriate financial behaviour is deeply intertwined with social and psychological factors such as self-regulation (an individual's ability to manage or control behaviour) and self-efficacy (an individual's confidence in his or her ability to perform a certain behaviour in various situations) (T*ang and Baker, 2016*).

Therefore, the literature is rich in insights related to factors that may influence MMP. Considering the findings of the literature review we initiate our research to find confirmation or refutation of the factors applied to Gen Z.

4. *Aim of the Research and Methodology*

This research investigates the MMP of the next generation of investors as a first step in building the content of a finance course in line with the characteristics and expectations of Generation Z, that is, the generation of students who are currently taking college courses.

As highlighted in the previous paragraph, the abundance of literature on the subject invites us to focus the TNA on a few drivers. In this regard, the following research question was formulated:

RQ1: Which factors influence the Gen Z's MMP?

To complement the MMP analysis and evaluation, and assuming the important role of families in building the wealth of young people (*Bamforth & Geursen, 2017; Danes & Haberman, 2007; Gudmunson & Danes, 2011; Jorgensen & Jyoti, 2010*), we are also interested in investigating if members of Gen Z have

developed their own management style (autonomous and independent) or if they rely on trusted family financial advisors. Hence the second research question was developed:

RQ2: Does Gen Z rely on a trusted family financial advisor?

To test our RQs, we defined the methodology in terms of participants and procedures.

Participants

The sample used in this survey was composed of students from a faculty of Economics and Law. In terms of the trade-off between specificity and generalizability, the use of specific sampling techniques as well as the sample size support the generalization of the results obtained. No context specificities were identified that would make the sample particularly tied to a specific cultural context. The respondents belonged to different ethnic groups, came from various backgrounds, and had pursued their higher education studies nationally and internationally. The absence of specificity favours generalization.

The sample of college students was chosen as representative of a population familiar with management, investment, and savings topics, which are identifying features of Gen Z (Uzelac & Lučić, 2020).

The questionnaire (which will be explained below) was submitted online and completed by 273 students. Given the number of observations collected and the results recorded, the questionnaire administered constitutes a validation test.

Students did not receive any response incentives but simply an invitation to collaborate through their institutional emails, preceded by a concise explanation on the general objectives of the research carried out by the teacher in the classroom.

Data Gathering

Due to the innovative nature of this study, it was not possible to refer to an institutional database. Therefore, a questionnaire - also used for the studies conducted by Lippi and

Rossi (2022) with which our research work is intertwined - was designed based on existing literature. The administration of the questionnaire occurred through the official university platform (Blackboard) and this enabled the collection of good quality data.

The questionnaire was organized in three sections:
- Section #1: information on respondents' attitudes towards money, savings and financial investments and on the role played by the family;
- Section #2: information on the sources of financial resources available to respondents, to assess their autonomy and on the way they save money;
- Section #3: socio-demographic information and family composition.

By coordinating sets of test questions with each other, ordinal variables and dummy variables were then constructed.

Table 1 describes the variables used in the analysis.

Table 1 – Variables description

Variable	Description	Expected Sign
Dependent variable		
Money Management Perspective	Propensity to a positive attitude in management of money (value increasing from 0 to 22)	
Independent variables		
Autonomy	Detects independence and economic autonomy of the respondent (1: independent sources of income; 0: s/he depends financially on family remittances).	+
Age		+
Gender	Dummy variable: (1 female; 0 male).	
Monitoring	Frequency with which the respondent monitors income and expenditure (2: regularly; 1: occasionally; 0: no habit).	+
Save_products	Dummy variable: (2: savings invested in financial instruments or mutual funds; 1: rechargeable credit cards or current accounts; 0: coins and banknotes).	+
Family_comfort	Dummy variable: (0: family wealth of up to 40,000 Euros; 1: wealth from 40,000 Euros to 70,000 Euros; 2: wealth greater than 70,000 Euros).	+
Consultant	Knowledge of a consultant (2: personal knowledge of the family's tied-agent; 1: if the respondent personally knows the family's reference bank employee; 0: if the respondent does not personally know the family's financial advisor or his/her family does not have a financial advisor).	+
Single_parents	Dummy variable: (1: parent/s is/are single, widowed, separated, or divorced; 2: parents living together).	+
Bank_oriented	This variable ranges from 0 (no current account and no credit card: only use of cash) to 4 (holder of one or more current accounts and credit cards).	+
Father_job	2 entrepreneurs or freelancers; 1 employees, home-makers and retirees; 0 unemployed.	+
Mother_job	2 entrepreneurs or freelancers; 1 employees, home-makers and retirees, 0 unemployed.	+
Self-efficacy	This variable ranges from 0 to 3 (3: a respondent who feels appreciated by the family and who sees himself/herself as a successful performer in the future; 0: a respondent who does not feel appreciated by the family and who does not even see himself/herself as a successful performer in the future).	+
Family_awareness	The respondent's perception of the contribution of his/her family in developing an awareness in the management of his/her financial resources. The variable ranges from 0 (not at all) to 4 (maximum).	+

Table 2 describes the descriptive statistics, while Table 3 presents the correlation matrix.

Table 2 - Descriptive Statistics (N=273)

Variable	Min	Max	Mean	Std. Dev.
money management perspective	9	22	16.68	2.9
Autonomy	0	1	0.31	0.46
Age	20	28	22.13	1.76
Gender	0	1	0.56	0.50
Monitoring	0	2	0.86	0.79
Save_products	0	7	1.75	1.51
Family_comfort	0	2	1.31	0.65
Consultant	0	2	0.34	0.71
Single_parents	0	1	0.85	0.36
Bank_oriented	0	4	2.22	0.95
Father_job	0	2	1.34	0.52
Mother_job	0	2	0.97	0.56
Self-efficacy	0	3	1.56	1.49
Family_awareness	1	4	3.6	0.63

Table 3 – Correlation Matrix

	money	Auton	Age	Gende	Monit	Save_	Family	Consul	Single	Bank_	Father	Mothe	Self-	Family
money management perspective														
Autonomy	.25*													
Age	.17*	.20*												
Gender	0.11	0.06	0.21*											
Monitoring	.30*	.10	.09	.05										
Save_products	.31*	.17*	.10	0.18*	.10									
Family_comfort	0.17*	0.12*	0.19*	0.01	0.04	.12*								
Consultant	.01	0.01	.09	0.07	.11	.30*	0.02							

Single _parents	0.16*	0.	0.08	0.17*		.10	0.09	.14*	0.10			
Bank _oriented	.12	.19*	.18*	0.09	.06	.23*	0.06	.02	0.02			
Father _job	0.06	0.11	0.04	.09	.06	0.02	.16*	.10	.06	0.14*		
Moth er_job	0.10		.02	.06	0.03	.04	.13*	0.02	.03	.01	0.02	
Self-efficacy	.08	.02	.07	0.06	.11	.20*	0.04	.17*	0.01	.04	.09	.07
Famil y_aware ness	.04	0.01	0.09	.13*	.10	.04	.17*	.02		.08	0.10	.05	0.03

Unlike the study by Lippi and Rossi (2022) - which is based on a probit regression - we ran the following ordered logit regression:

$$MMP_i = \sum_{k=1}^{n} \beta_k X_{k,i} \sum_{y=1}^{m} \beta_y Z_{y,i} + \varepsilon_i$$

where:

- MMP represents the positive attitude to managing money from the perspective of i ;

- X_k are the n respondents' objective status variables;
- Z_y are the m respondents' personal judgements;
- ε_i denotes the error component at the respondent level.

Logit and probit models are used in the literature to analyse discrete variables (such as our dependent) analysing, for example, risk perception (Lippi et al., 2018)

The results obtained are shown in Table 4 which is analyzed and described in the next section.

5. Findings

The table showing the determinants of the students' MMP (Tab. 4) is divided into two columns where (a) considers the respondents' objective status variables, while (b) also includes the respondents' personal judgement variables. We can confirm that results converge.

Table 4 – Determinants of students' money management perspective

	Coefficient
Autonomy	0.67***
	(0.25)
Age	0.09
	(0.07)
Gender	-0.22
	(0.23)
Monitoring	0.58***
	(0.14)
Save	0.34***
	(0.08)
Family_comfort	-0.47***
	(0.18)
Consultant	-0.32*
	(0.16)
Single_parents	-0.67**
	(0.31)

Bank_oriented	0.23
	(0.21)
Father_work	-0.01
	(0.21)
Mother_work	-0.32*
	(0.19)
Observation	273
Prob>Chi2	0.0000
Pseudo R2	0.0630

Dependent variable: money management perspective. *Standard errors in brackets. *, **, *** denote statistical significance at 10%, 5% and 1%, respectively.*

Regarding RQ1, the analyses demonstrate that:

- "economic autonomy" plays a positive role on the MMP. Respondents who have jobs and can obtain independent sources of livelihood and savings have a different attitude than those who have not yet achieved their full or partial financial independence. In line with our expectations, result demonstrates a direct relationship between the value attributed to money and the effort made to obtain them;

- "age" and "gender" do not show statistically significant coefficients. The result is probably explained by the homogeneity of the respondents (see Tab. 2). Indeed, they are close to the same age and the attendance of a course of study in the economic-financial field may have reduced the gender differences reported in the literature;

- "monitoring" has a positive and statistically significant coefficient. In line with our expectations, this shows that MMP is positively influenced by the habit of carrying out periodic checks on the dynamics of their financial flows. Keeping regular and constant monitoring of income and expenditure brings out great sensitivity, leveraging the ability to manage money consciously over time;

- "save_products" has a positive and statistically significant coefficient. Higher values of this covariate denote that

respondents invest their financial flows in asset management products, while lower values indicate that respondents do not venture into the use of sophisticated products but rather simply deposit their savings in a checking account or they just accumulate cash. A greater sophistication in financial choices is associated with a more positive vision of financial dynamics;

- "family comfort" has a statistically significant coefficient that takes a negative sign. Obviously, higher values of family wealth can potentially generate less interest in money management. These dynamics appear to be consistent with the fact that young people with greater family wealth may take money for granted, and this can generate physiological disinterest in its focused and judicious management. These results obtained are in line with those obtained by Lippi and Rossi (2022) and confirm that respondents who belong to a single-parent family tend to have a good money management perspective. This result is partly interesting in that it shows that young people living in a family where the father or mother is single have a greater incentive to work on their MMP to make their own personal contribution to managing family finances;

- "Mother_job" plays a negative role on young respondents' good money management. Specifically, self-employed, or entrepreneurial mothers negatively influence their children's MMP. This is a psychological issue that would require an in-depth study of the mother-child relationship but is not the subject of this paper.

Regarding RQ2, "consultant" assumes a negative and statistically significant coefficient. We expected that respondents familiar with family advisors have developed a greater interest in savings and investment management. Contrary to our expectations, the direct knowledge of a trusted family financial advisor leads to have less interest in money management. Tab. 2 shows that the average value of this variable is 0.343 with a standard deviation of 0.7: this value means that the respondents generally do not even know their family's financial advisor demonstrating a kind of general disinterest in family financial affairs.

These results are quite worrisome, especially considering the current economic and financial situation that calls for prudent, foresighted and wise management of one's portfolios.
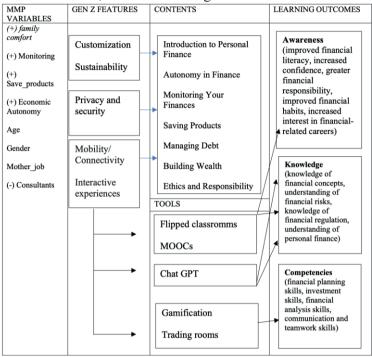
6. Proposal of a Multimodal Approach to Craft a "Fit-for-Purpose" University Course

The survey conducted clearly shows that Gen Z is approaching savings in a deconstructed way and without a clear vision of future scenarios, not assisted or supported by any financial advisor or even in touch with their family's one.

The empirical analysis conducted in collaboration with Lippi and Rossi (2022) reveals trends consistent with the main literature on young people's financial behaviour and attitudes toward money, highlighting the positive role of education, occupational status (having a job) and available income. Interestingly, it also shows contradictory results on gender (there is no distinction in behaviour between males and females) and the influence of family. Respondents do not share financial decisions with parents, and this is probably due to their specific education.

Universities should take these peculiarities into account when designing pedagogical tools. Traditional teaching methods for financial disciplines are too restrictive regarding a student's ability to learn, as they do not encourage a connection to the subject or curiosity.

As shown in Tab. 5, the results emerged from the survey on MMP place universities in the position of having to think about the adoption of proper contents and tools suitable for providing Gen Z with correct, gradual, and effective learning outcomes on financial wealth.

Tab 5. – Contents, tools and learning outcomes

MMP VARIABLES	GEN Z FEATURES	CONTENTS	LEARNING OUTCOMES
(+) family comfort (+) Monitoring (+) Save_products (+) Economic Autonomy Age Gender Mother_job (-) Consultants	Customization Sustainability Privacy and security Mobility/ Connectivity Interactive experiences	Introduction to Personal Finance Autonomy in Finance Monitoring Your Finances Saving Products Managing Debt Building Wealth Ethics and Responsibility **TOOLS** Flipped classromms MOOCs Chat GPT Gamification Trading rooms	**Awareness** (improved financial literacy, increased confidence, greater financial responsibility, improved financial habits, increased interest in financial-related careers) **Knowledge** (knowledge of financial concepts, understanding of financial risks, knowledge of financial regulation, understanding of personal finance) **Competencies** (financial planning skills, investment skills, financial analysis skills, communication and teamwork skills)

When planning a course, we cannot fail to consider the characteristics of Generation Z., align them with proper contents and tools and in turn align the tools with the learning outcomes.

6.1 Gen Z features

They are digital natives, and they expect to be connected to the world and able to access information at any time. Thanks to technology, Gen Z has access to a great deal of information, which allows them to make highly informed as well as more pragmatic and analytical decisions than representatives of previous generations. However, they consume information fragmentarily as they use several devices simultaneously and their main sources of information are social networks.

Gen Z individuals are deeply immersed in visual culture and view their online worlds as an extension of their real lives. They have diverged from the notion that all their posts must be flawless, and instead, they prioritize content that is genuine, relatable, and personalized, with videos being the preferred medium for self-expression. To engage Gen Z individuals, videos and pictures should feature personal details that they can identify with and reshare as an expression of their unique identities (*Olipas, 2022*). These elements inevitably have an impact on their lifestyle and behaviour as well as their financial knowledge, habits, preferences, and wealth (Francis & Hoefel, 2018).

Gen Z individuals heavily rely on online platforms for socialization, while still desiring in-person interaction. They possess high cognitive abilities, including quick information processing, but may face challenges in working collaboratively, making cooperative learning an effective approach to impart key competencies such as negotiation and collaboration (*Igel & Urquhart, 2012*). Gen Z students prefer immediate feedback on assignments just as they do on social media (Miller & Mills, 2019).

As far as privacy and security, they are acutely aware of what is and isn't acceptable to share online. One of the first things they do when turning on their phone or logging into a social app is enable their privacy settings.

Leveraging digital media, in conjunction with face-to-face communication, has been identified as an effective strategy to engage the technologically adept Gen Z students, who expect to receive information through digital channels. Employing such methods may reinforce face-to-face interactions and enhance practical learning opportunities for Gen Z students (*Spears et al., 2015*). Gen Zers have shorter attention spans: believes in multitasking and likes to learn everything on their own, underscoring their individuality. They believe in doing more in less time, and thus, efficiency and effectiveness are attributed to be part of their personality (*Chillakuri & Mahanandia, 2018*).

To meet the expectations of Gen Z individuals, personalized and on-demand experiences are necessary. These experiences must align with their values, which encompass authenticity, integrity, and personalization. Practically speaking,

meeting these expectations requires transparency, trustworthiness, and above all, treating them as unique individuals (*Olipas, 2022*).

Gen Z also places importance on social sustainability. This is because they are the most diverse generation in human history in terms of various demographic characteristics (Wawer, M.; Grzesiuk, K. & Jegorow, D., 2022).

6.2 Learning outcomes

Designing a finance course for Gen Z students requires to have in mind alongside the features of Generation Z also the learning outcomes. The Dublin descriptors point out five types of learning outcomes that students will have to demonstrate to have acquired to achieve the title corresponding to the level of the course (Gudeva et al., 2012). These are:

- knowledge and understanding
- applying knowledge and understanding
- making judgements
- communication skills
- learning skills

These outcomes will be defined according to the cycle level in which the course will be delivered. According to our research the money management program highlights the importance that the student can apply their knowledge and understanding in a manner that indicates a professional approach to their work or vocation and have competences typically demonstrated through devising and sustaining arguments and solving problems within their field of study in new or unfamiliar environments within broader (or multidisciplinary) contexts related money management problems and topics. Moreover, the objectives of a finance course in terms of learning outcomes are also to help the student to develop their competences with those learning skills that are necessary for them to continue to undertake further study with a high degree of autonomy. (Tam, 2006, 2007; Guo et al, 2022)

The learning outcomes are represented by three aspects: awareness, knowledge, and competences (as described by Allan in 1996, Svanström et al. in 2008, and Delamare Le Deist & Winterton in 2005). To be aware means to have the ability to

improve one's financial literacy, feel more confident, and take greater financial responsibility. By understanding the consequences of financial decisions and learning how to plan, students may become more motivated to save money and avoid debt. The financial course provides students with new knowledge, including financial concepts such as budgeting, saving, investing, credit, and debt management. They may also learn about the financial system, financial products, financial regulations, and the role of financial institutions. The course should allow students to apply what they have learned, develop their competencies, and acquire new skills such as financial planning, investment, financial analysis, communication, and teamwork.

6.3 Contents and tools

Among the variables that influence MMP Universities can certainly work on contents consolidating "Monitoring", "Save_products" and "autonomy" (being obviously unable to act on "family comfort") by identifying suitable teaching tools to generate a positive reaction in students, interest in the subject matter, and a change in savings and investment styles.

The versatility of GPT chat allows us to use it to define appropriate the contents of a course on finance for gen Z that takes into consideration autonomy, monitoring and saving products, the three variables that positively affects the MMP.

In Tab. 6 a proposal is summarized:

Tab. 6 – Proposal of contents tailored on Gen Z's MMP

Introduction to Personal Finance
The importance of personal finance
Understanding the basics of budgeting
Developing a financial plan for the future
Autonomy in Finance
Understanding financial independence
Building a credit score and how it affects financial autonomy
Setting financial goals and creating a plan to achieve them
Monitoring Your Finances
Understanding income and expenses
Budgeting tools and apps
Tracking your spending and staying on track
Saving Products
Types of savings accounts and their benefits
Investing for the future
Understanding the stock market and other investment options
Managing Debt
Understanding types of debt
Strategies for paying off debt
How to avoid debt and stay financially healthy
Building Wealth
Understanding the difference between saving and investing
How to build a diversified investment portfolio
Long-term investment strategies for building wealth
Ethics and Responsibility in Finance
The importance of responsible financial decision-making
Ethical considerations in investing and personal finance
Using your financial resources to create positive change

This frame could then be developed in a customised manner according to the characteristics of the specific class (bachelor or master).

Moskal et al. (2013), Heinrich and Darling-Aduana (2021) pointed out that blended approaches tend to have higher student satisfaction than both face-to-face (F2F) teaching and fully online teaching, as well as lower dropout rates.

In this work, we propose the adoption of "flipped classes" with massive open online courses (MOOCs) and gamification as innovative approaches to stimulate young people learning process on "Monitoring" and "Save_products" and to introduce university students to a wholesome financial education. In addition, ChatGPT as a language model can represent a useful tool to provide educational content and answer questions related to finance for Gen Z.

Flipped classrooms are a teaching method that involve the skilful use of technology to support learning processes making an innovative use of time (Roblek et al., 2019). In a flipped class students attend class with a good foundation of preparation made at home by watching videos and studying online material arranged in advance by the teacher (online session). During the classes, students are asked to work actively on the content previously learned through remote activities while teachers support them in the mechanisms of processing and consolidation (F2F session).

MOOCs - online courses designed for open, unrestricted participation (Kaplan & Haenlein, 2016; Wang & Zhu, 2019) - can be used to enable the student to create the fundamental knowledge base for later active participation in the class. These courses support a flexible way of acquiring new skills and knowledge through a user experience dictated by the student's needs and time availability.

Once the student has built up his or her knowledge base according to timelines conveyed by the teacher, he or she is ready to participate in the more active part of the frontal lesson. During the F2F session, students should be invited to solve concrete and practical problems on monitoring and savings products and the teacher's role effectively should switch from content delivery to facilitation and guidance (Schwartz et al., 2013). Learning can be

accomplished through group work where the teacher can be supportive in idea generation and sharing, scaffolding and one-to-one assistance.

Flipped classrooms can also represent a solution for unengaged students in that increased opportunities to collaborate with peers can improve motivation and engagement, increase the sense of responsibility, and decrease the fear of individual failure (Swart & Wuensch, 2016; Gray & DiLoreto, 2016).

Another tool can be represented by gamification, which is the introduction of game elements into non-game contexts, is another method for integrating young people in the learning process of "monitoring" and "savings". Board games, role play, and digital games in 2D or 3D have all been proven to trigger student engagement and stimulate learning. All these games enhance persistence and shorten the feedback cycle, which offers students a chance to look back and assess where they might be lacking and how they can improve by applying different perspectives into practical situation. For subjects with a higher complexity like finance, gamification enables students to learn by doing. Remnova and Shtyrkhun (2020) conducted a study that used educational games within economics and finance programmes. They found that students' motivation and engagement in the learning process improved, as well as students' initial interest in the subject. Students became more sociable, creative, and persuasive and developed leadership and effective time management skills. Some Universities already implemented trading rooms in joint venture with a data provider and the results of the experiment were beyond positive as the level of engagement has improved with a remarkable impact on learning.

Also ChatGPT has the potential to serve as a valuable tool for tailoring finance courses to the needs of Gen Z individuals. It can facilitate interactive learning experiences, customize learning, and present intricate concepts in an engaging manner.

7. Conclusions, implications, and suggestions for future research

In an increasingly fierce, fragmented, and diversified training offer market for universities, offering excellent, high-quality services can represent a qualifying and distinctive trait. Student satisfaction is a crucial element in the final evaluation of a university course which frequently shows low satisfaction, modest engagement, and scarce active student participation.

Universities play a key role in creating the general culture of new generations. In this regard, traditional teaching methods are too restrictive concerning Gen Z's ability to learn. Teacher's awareness of the students 'needs is an excellent starting point, and, in this respect, the analysis of the educational needs, gaps and shortcomings is a critically important trait for the success of a university course. Equally important as the contents are also the new forms of teaching such as gamification, flipped classrooms with MOOCs, virtual trading rooms that can be helpful in bringing students engaged.

This approach is not the exclusive preserve of a single course but underlies a university culture and vision: it requires an institution-wide strategy and proper resources to become a transformational force (*Moskal et al., 2013*). The change required is anything but immediate: it requires a revisiting of established and traditional paradigms and adequate time to facilitate the transition to the new pedagogical tools. It implies a considerable investment in targeted and functional training for teachers (teaching is less frontal, more technological, more interactive).

However, considering that the academic system is significantly raising the bar for research quality assessment, it is difficult to carve out sufficient time to reflect deeply upon teaching. Despite possible friction toward change on the part of faculty, this new approach to teaching can bring significant benefits to both the university, the faculty and the students.

From the universities 'point of view, crafting courses on the characteristics of Gen Z can bring unquestionable benefits by:

- improving the quality of the service offered and as a consequence the satisfaction indicators/indices with respect to accreditation processes (that require clear and certified formalism and quality orientation);

-    attracting new engaged students and decreasing drop-out rates;

-    improving the course climate and strengthening the student-teacher relationship

-    improving the quality of teaching which is essential for university that need to face the competition of web initiatives that are becoming more and more appealing.

Students' participation and interaction, personalization of course contents and attention to students learning needs are all success factors to maintain the teaching offer at the forefront.

Moreover, this approach relies on inexpensive but highly effective tools that can help Universities become flexible to adapt to changing environments.

Faculty members can spend less time on lecture preparation (time that can be devoted to research) and derive greater motivational stimulus from rich and active student participation. In fact, the frontal lecture can be time-consuming for the lecturer and poorly engaging for the student who merely listens and takes notes. Blended lectures turn out to be interactive and participatory and therefore particularly stimulating for both the teacher and the student (who from being passive takes on an active/proactive role instead). New technologies are now available to favour interaction between teacher and students. Teachers must be supported by the university and by the students to gain new ideas and perspectives in learning new delivery methods. Some university created centres for teaching innovation with experts that with a central effort help teachers to upgrade their teaching know-how and to make blended learning feasible from the organizational point of view.

From the student's perspective, the enhancement of the "student experience" brings a multitude of benefits. Blended learning represents an excellent teaching method to stimulate and consolidate the so-called 21st century skills (*Care et al., 2018*). Connecting the content knowledge to real-world applications and problem situations allows the student to work on learning, literacy and life skills generating a kind of "synergistic combo". A high interaction is a source of personal growing for students that learn to collaborate with teachers and classmates during the lecture. They

intervene, take the floor, suggest, train their creativity and overcome their shyness becoming more self-confident and more satisfied. Gen Z students need to be more visual, interactive, with information available instantaneously and, most important, incorporating technology and social media/networking. They also want to participate to the decision and implementation process, to co-produce information to help universities to personalize answers (*Ng & Forbes, 2009*). This can be a stimulus to the teacher in a perspective of long-life learning and as a form of reverse mentoring that in business affairs is adopted to make different generation coexist. Students need to participate, and the teacher's mindset must adapt to this need that can no longer be postponed. Even a technical advancement is stronger if accompanied by the strengthening of life skills as well.

Additionally, students have a preference to learn practical knowledge to apply for future employment. Too often in final evaluations, student dissatisfaction is noted that they have been excessively subjected to theoretical courses whose content is detached from practice and teaching methods predominantly frontal in nature. Our proposal aims to foster a learning environment inspired by co-creation principle, since when students co-create, the learning environment is transformed and enriched by their lived experiences.

As far as future research is concerned, the authors intend to widen the reference sample to include the characteristics of students not belonging to economics faculties and to carry out a comparative study with universities in other countries. They also plan to consider other evaluation models beyond Kirkpatrick and Kirkpatrick (2006).

This study can be used for the redesign and delivery of not only finance courses but also other university courses. For example, courses in STEM disciplines can benefit from these changes. In the planning and delivery of university courses the specificities of Gen Z cannot be overlooked or sidelined: a careful TNA can provide support in this direction.

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