Nina Pološki Vokić, Ph.D. [*]
Ana Aleksić, Ph.D. [**]

WHICH ARE THE MOST EFFECTIVE METHODS FOR TEACHING MANAGEMENT AT A GRADUATE LEVEL? – FEB STUDENTS' PERCEPTIONS OF INDIVIDUAL TEACHING METHODS AND TEACHING METHOD BUNDLES EFFECTIVENESS

KOJE SU NAJUČINKOVITIJE METODE PODUČAVANJA MENADŽMENTA NA DIPLOMSKOJ RAZINI – PERCEPCIJE STUDENATA EKONOMSKOG FAKULTETA U ZAGREBU O UČINKOVITOSTI POJEDINIH NASTAVNIH METODA I „SVEŽNJEVA" METODA PODUČAVANJA

ABSTRACT: University lecturers reached the consensus that more outcome oriented and visual teaching is favoured by Generation Y. However, it is crucial to assess students' perceptions about the effectiveness of various active and passive teaching methods, as their perceptions determine how students approach their learning, and as a result affect learning outcomes. In the theoretical part of the paper, previous empirical findings and conclusions about the effectiveness of different teaching methods (TM), as well as students' preferences of teaching methods related to their generational membership and other demographic characteristics are reviewed. In the empirical part of the paper, the effectiveness of various teaching methods was assessed by 99 graduate program students in Management from the Faculty of Economics and Business Zagreb. Students' perceptions are explored through a comprehensive list of 52 individual TM, as well as through TM bundles obtained through a factor analysis. As well, respondents' perceptions were related to their demographic characteristics (gender, undergraduate and graduate grade point average (GPA), (relevant) work experience, and extracurricular engagement).

KEY WORDS: teaching methods, teaching methods effectiveness, students' perceptions, graduate management program, Croatia.

---

[*]   Nina Pološki Vokić, Ph.D., full professor, University of Zagreb, Faculty of Economics and Business, Trg J. F. Kennedyja 6, 10 000 Zagreb, Croatia, e-mail: npoloski@efzg.hr.

[**]   Ana Aleksić, Ph.D., assistant professor, University of Zagreb, Faculty of Economics and Business, Trg J. F. Kennedyja 6, 10 000 Zagreb, Croatia, e-mail: aaleksic@efzg.hr.

SAŽETAK: Sveučilišni predavači slažu se kako studenti pripadnici generacije Y preferiraju učenje koje je orijentirano na ishode učenja te vizualno učenje. Međutim, ključno je istražiti percepcije studenata o učinkovitosti različitih aktivnih i pasivnih metoda podučavanja, budući da njihove percepcije utječu na to kako pristupaju učenju te u konačnici utječu i na njihove ishode učenja. U teorijskome dijelu rada analiziraju se dosadašnja empirijska istraživanja i zaključci o učinkovitosti različitih metoda podučavanja, kao i studentske percepcije učinkovitosti pojedinih metoda, posebice s obzirom na pripadnost generaciji te druga demografska obilježja. U empirijskome dijelu rada, učinkovitost različitih metoda podučavanja procijenjena je od strane 99 studenata diplomskoga studija Menadžment Ekonomskog fakulteta u Zagrebu. Percepcije studenata istražene su putem sveobuhvatnog popisa 52 pojedinačne metode podučavanja, kao i putem „svežnjeva" dobivenih faktorskom analizom. Isto tako, percepcije ispitanika analizirane su ovisno o njihovim demografskim obilježjima (spol, prosječna ocjena na preddiplomskoj i diplomskoj razini studija, (relevantno) radno iskustvo i izvannastavne aktivnosti).

KLJUČNE RIJEČI: metode podučavanja, učinkovitost metoda podučavanja, percepcije studenata, diplomski studij Menadžment, Hrvatska.

1. INTRODUCTION

As educators, we wish to transmit information to our students in the most effective and efficient manner (Golen, Burns & Gentry, 1984). In the past decade we are therefore fostered to shift the focus from teacher-centred to student-centred mode of tuition (e.g., Abbasi et al., 2013; Mahmood et al., 2013). Firstly, student-oriented learning is emphasized by the Bologna Process that required an almost complete re-engineering of the predominant lecture-based teaching methodology (e.g., Benković & Dobrota, 2012; Pedró, 2005). Secondly, we have to adopt to our Generation Y students who are visual learners (e.g., Kline, Van Gundy & Liu, 2003), as they were brought up in the knowledge society where information and communication technologies (ICTs) and the visual environment they create are everywhere, and must therefore be present in university education as well (Pedró, 2005).

University lecturers reached the consensus that more outcome oriented and visual teaching is favoured by Generation Y. However, as Fatima et al. (2007) point out, it is crucial to assess students' perceptions as they determine how students approach their learning, and as a result affect learning outcomes. Consequently, in this paper we analyse what do Generation Y students consider a high-performance student-focused environment. Our main premise, of course, is that Generation Y members prefer "digital" teaching approaches, such as e-learning, internet usage and visual elements, as well as "hands-on" opportunities, such as case studies and project work.

In the theoretical part of the paper, previous empirical findings and conclusions about the effectiveness of passive compared to active teaching methods, as well as students' preferences of teaching methods related to their generational membership and other demographic characteristics, are reviewed. In the empirical part of the paper, the effectiveness of various teaching methods was assessed by graduate program students in Management from the Faculty of Economics and Business – Zagreb. Students' perceptions are explored through a comprehensive list of 52 individual teaching methods, as well as through teaching

method bundles obtained through a factor analysis. As well, respondents' perceptions were related to their demographic characteristics (gender, undergraduate and graduate grade point average (GPA), (relevant) work experience, and extracurricular engagement). In the final part of the paper we recommend teaching methods, both individual and in bundles, to which management teachers should give a priority when disseminating management knowledge/skills, especially having in mind demographic characteristics of future generations of students.

2. THEORETICAL BACKGROUND

2.1. The effectiveness of active and passive teaching methods

Educational and business school researchers suggest that using teaching methods aligned to student preferences and needs can help students not only to maximize retention of subject knowledge but also to improve their attitudes, test scores, and higher order skills (Piercy et al., 2012). However, traditionally used teaching methods, from students' perspective, are very often perceived as not effective enough and unable to respond to their needs for more interactive teaching techniques and teaching process with higher emphasis on the applicability of knowledge (Pietrzykowski & Szczyt, 2012). Additionally, because of various changes in society, business education has been challenged to create an education system that is more practically oriented (*Škudienė*, 2012). A system that would teach students to function in real world (Mocinic, 2012), but also help them develop good teamwork abilities, interpersonal and leadership skills, as well as problem solving and analytical skills (Mohammad, 2015), is nowadays desirable.

In order to respond to these changing demands of both students and society, there was a shift in teaching content and materials, as well as in teaching methods used. Literature review suggests a shift from traditional, teacher-centred approach to modern, student-centred approach. Traditional, more passive teaching methods (e.g., lectures, exercises) positioned teachers in the centre of the learning process and enabled transmission of information from teacher to students, with students being passive receivers of information (e.g., Dowling, Godfrey & Gyles, 2003). Direct teaching is considered efficient for knowledge transfer, and knowledge acquisition seems to be better through oral lectures (e.g., Peroz, Beuche & Peroz, 2009). However, it is not efficient enough for deeper understanding of the subject, problem solving, creative work and similar (Mocinic, 2012).

Modern, more active approach emphasizes student involvement and active participation through discussions and/or collaborative activities (Carpenter, 2006). This approach values professors as co-learners, and has a higher focus on education than instruction (*Škudienė*, 2012). Teachers take on a new role, the one of an organizer and coordinator of the educational process (Yakovleva & Yakovlev, 2014). Students have the opportunity to question, discuss and explore, and not only acquire knowledge but also develop their skills and attitudes (e.g., Arasti, Falavarjani & Imanipour, 2012).

Researches provide empirical support of the efficacy of active teaching techniques compared to traditional ones. Applying active teaching methods in a traditional lecture-based course has proven to produce measurable changes in student learning (e.g., de

Caprariis, Barman & Magee, 2001; Perkins & Saris, 2001). The inclusion of active teaching methods was shown to lead to significant improvements in terms of students' academic performance (e.g., Berg et al., 1995; Dowling, Godfrey & Gyles, 2003; Johnson & Mighten, 2005; Yoder & Hochevar, 2005), as well as to improve cognitive outcomes in class-specific materials (e.g., Cui, 2013; Michel, Cater & Varela, 2009). A long-term retention of materials presented in classes has also been associated with active teaching methods (van Eynde & Spencer, 1988). Terenzini et al. (2001) show that besides providing greater gains in student learning, active methods also lead to greater gains in students' design, communication and group skills, while Miller (2004) showed that they lead to greater student ability to understand problems and develop solutions. Results also indicate that active methods produce better learning performance (e.g., Kerr, Troth & Pickering, 2003; Young, Klemz & Murphy, 2003) as students consider their applicability to enhance the learning process. Furthermore, the results revealed that students perceive their learning to be more meaningful to their future jobs if active methods are applied (Wingfield & Black, 2005). Finally, students show higher levels of satisfaction and engagement (e.g., Kellar et al., 1995; Laditka & Houck, 2006), as well as the increased interest in the topic (Pfahl et al., 2004.), when they are active participants in the learning process.

2.2. Generation Y's teaching method preferences

Student preferences regarding teaching methods used changed with the emergence of a new generation (e.g., Parrish, 2016). Today's students, the generation Y students, have developed new attitudes and aptitudes as a result of their environment (Oblinger, 2003). Generation Y students prefer kinaesthetic and visual learning activities over traditional teacher-centred approach (Reilly, 2012). They prefer the use of technology, experiential activities, and teamwork and collaborative learning (e.g., Kvavik, 2005; Minifie, Middlebrook & Otto, 2011).

Technology has been the integral part of their lives, so they consider technology as an essential element in their own learning process. They also seek instant information and knowledge on the web, instead finding it in a textbook (Skiba & Barton, 2006). Still, research findings emphasize their preference for a moderate and practical use of technology in the classroom (e.g., Kvavik, 2005; McNeely, 2005).

Generation Y students favour experiential activities (e.g., problem-based learning) and learning by doing rather than listening (e.g., Brown, 2005; Sternberg, 2012). They enjoy thinking outside the box, and prefer learning to be creative, interactive and fun (Eckleberry-Hunt & Tucciarone, 2011). They also expect timely and continuous feedback during the learning process (e.g., McNeely, 2005; Parrish, 2016).

Generation Y members have been raised doing things in teams, and thus they developed a strong preference for working in groups and on group projects (McNeely, 2005). They believe that learning is encouraged and strengthened through social interactions, interpersonal relations, and communication with others (Brown, 2005). As a consequence of their preferences for teamwork and collaborative learning, they may have difficulty with individualized thinking (Johnson & Romanello, 2005). It is interesting, however, that for them the importance of individual assessment and accountability remained (Minifie, Middlebrook & Otto, 2011).

2.3. Students' demographic characteristics and teaching method preferences

Numerous researchers emphasized the potential of different demographic characteristic to influence preferences and perceptions of effectiveness of different teaching methods (e.g., Fatima et al., 2007; Keri, 2002; Murphy et al., 2004).

Gender is one of the mostly analysed characteristic distinguishing teaching method preferences. Gender-related differences in preferred structure, content and mode of instruction, as well as in academic expectations and learning styles were found (e.g., Brainard & Ommen, 1977; Weber & Custer, 2005; Wehrwein, Lujan & DiCarlo, 2007). Results suggest that women prefer abstract learning, and when reading assignments are required, learning materials are organized and instructors demonstrate knowledge (e.g., Keri, 2002). Men showed preference for applied learning, and using everyday life experiences as a basis for learning (e.g., Keri, 2002). However, some studies revealed minimal differences in students' perceptions across gender (e.g., Fatima et al., 2007; Sun, 1997) or found no association (e.g., Alhabri et al., 2017; Murphy et al., 2004).

Fatima et al. (2007) indicate differences in perceptions of teaching methods' effectiveness depending on student academic performance, as students with the above average GPA tend to perceive student-centred teaching methods as more effective. Other studies, however, did not found the academic achievement to be associated with learning preferences (e.g., Alharbi et al., 2017; Baykan & Naçar, 2007).

Further demographic variables that were found to be associated with teaching/learning preferences are employment status (e.g., Alhabri et al., 2017), student ethnic background (e.g., Fatima et al., 2007), and national culture (e.g., Rodriguez, 2005). For example, a research done on the influence of national culture on students' teaching preferences showed that active techniques were more preferred by students from societies having a small power distance or a weak uncertainty avoidance cultural orientation (Rodriguez, 2005).

3. METHODOLOGY

3.1. Instrument

A questionnaire on the effectiveness of teaching methods that are typically used during the teaching process was constructed from items identified in the relevant literature, and wide and long-time personal teaching experience. Students assessed the effectiveness of a total of 52 individual teaching methods (TM) that could be affiliated to six groups – lecturing, seminars, individual work outside the classroom, group work outside the classroom, occasional TM, and acquiring knowledge/skills via information technology. They expressed their perceptions on a Likert-type scale from 1 (teaching method does not contribute to acquiring new knowledge/skills at all) to 4 (teaching method contributes extremely to acquiring new knowledge/skills). In addition, the questionnaire collected respondents' eight demographic characteristics – gender, undergraduate GPA, graduate GPA to date, membership in a student association, participation in a student competition, student exchange experience, presence of any work experience, work experience in the field of stud-

ies (relevant work experience), and volunteering experience. The questionnaire was pilot tested on a small group of students.

3.2. Sample and data collection

A total of 99 graduate students with a major in Management participated in the study. This makes the 78.6% of the total population of management students at the graduate level at the Faculty of Business and Economics in Zagreb during the academic year 2016/2017. Among them, 64.6% were female, 18.2% are/were members of a student association, 27.3% participated in a student competition, 12.1% experienced a student exchange program, 90.9% have a work experience and 60.0% a relevant work experience, and 48.5% volunteered, while their GPAs are 3.39 at the undergraduate and 4.32 at the graduate level.

The data were collected during seminars, but students' participation in the survey was voluntary (students were informed about the survey in advance and could refuse participation). Although the questionnaire was not anonymous (for the purpose of tracking students' presence during seminars), the confidentiality was assured through aggregate analysis and discussion of retrieved data.

3.3. Data analysis

Firstly, mean values and standard deviations of the effectiveness of 52 individual TM were calculated. Next, in order to group teaching methods with a corresponding effectiveness, in other words to form TM bundles, the Principal Axis Factoring (PAF) method using varimax rotation with Kaiser normalization was used to generate factors. The factor analysis resulted in 16 factors for which mean values and standard deviation were calculated as well. Finally, the relevance of students' demographic characteristics for their perceptions was assessed using Mann-Whitney U tests (when independent variables of bivariate nominal scale) or Pearson correlation coefficients (when independent variables of ordinal/interval scale). The statistical software package IBM SPSS Statistics 21.0 was used for the data analysis.

4. RESULTS

According to graduate management students' perceptions, the most effective tuition approaches (mean values above 3.5 on a scale from 1 to 4) are (1) "lecturing using business examples experienced by teacher him/herself" (M = 3.88), (2) „lecturing using examples from organizational/managerial practice" (M = 3.86), (3) "lecturing using teaching aids (e.g., PPT presentations, short videos, internet) (M = 3.60), (4) "internship" (M = 3.58), (5) "teacher feedback about student work (projects, seminar papers, undergraduate/graduate thesis, etc.)" (M = 56), (6) "teacher feedback about student work during seminars" (M = 3.53), and (7) "interactive lectures (involving students in discussion)" (M = 3.51) (see Appendix 1 for complete results).

The five least effective tuition approaches according to respondents are (mean values below 2.5 on a scale from 1 to 4): (1) "lecturing without involving students in discussion"

(M = 1.70), (2) "lecturing without teaching aids (e.g., PPT presentations, videos, internet)" (M = 1.89), (3) "blog writing assignments" (M = 2.23), (4) "media content recording assignments (e.g., pictures, selfies, videos)" (M = 2.45), and (5) "student forums" (M = 2.49).

As individual teaching methods are not used separately but in combination, we determined TM bundles – groups of interrelated individual TM that could be used in conjunction or interchangeably. The factor analysis extracted 16 factors (see Appendix 1 for rotated factor matrix), whose mean values and standard deviations are presented in the Table 1.

Table 1 Mean values and standard deviations of 16 TM bundles

Factor	M	SD
1. Lecturing using examples from business (F14)	3.87	0.32
2. Lecturing using teaching aids (F16)	3.60	0.53
3. Teacher feedback (F9)	3.54	0.52
4. Internship and outside lectures/seminars (F10)	3.41	0.61
5. Teaching outside the classroom (F15)	3.36	0.73
6. Guest lecturing and watching education videos in the classroom (F5)	3.27	0.57
7. Interactive lectures/seminars and learning through exercises, case studies, etc. (F3)	3.15	0.47
8. Peer assessment and learning (F12)	3.08	0.70
9. Individual work on projects, seminar papers, etc., and working on real-life business projects/problems (F6)	3.03	0.58
10. Group work outside the classroom and during seminars, and writing "empirical" undergraduate/graduate thesis (F1)	2.98	0.55
11. Writing a "theoretical" undergraduate/graduate thesis and calculation assignments during seminars (F8)	2.98	0.67
12. Reading outside the classroom and individual learning (F4)	2.95	0.65
13. Alternative teaching methods (role playing, mental mapping, recording media content) (F11)	2.82	0.57
14. Using ICT while acquiring knowledge/skills and working on teachers' scientific research projects (F2)	2.78	0.52
15. Student presentations during lectures and seminars (F7)	2.74	0.65
16. Lecturing without teaching aids or involving students (F13)	1.79	0.69

Analogous to previous findings, graduate management students perceive "lecturing using examples from business" (M = 3.87), "lecturing using teaching aids" (M = 3.60) and "teacher feedback" (M = 3.54) as most effective TM bundles. Highly appreciated (mean values above 3.00 on a scale from 1 to 4) are as well "internship and outside lectures/seminars" (M = 3.41), "teaching outside the classroom" (M = 3.36), "guest lecturing and watching education videos in the classroom" (M = 3.27), "interactive lectures/seminars and learning through exercises, case studies, etc." (M = 3.15), "peer assessment and learning" (M = 3.08), and "individual work on projects, seminar papers, etc., and working on real-life business projects/problems" (M = 3.03). In the same time, they completely distrust "lecturing without teaching aids or involving students" (M = 1.79).

Finally, in order to control for demographic factors, the relationship between nine socio-economic characteristics and student assessments of the effectiveness of individual TM and TM bundles was explored. Items/factors that were statistically significantly differently assessed by students of distinct demographic characteristics are depicted in the Table 2.

Table 2 Statistically significant differences in individual TM and TM bundles assessment related to demographic factors

Demographic factor	Teaching methods for which statistically significant differences were found	
	Individual TM	**TM bundles**
Gender	▪ Lecturing using examples from organizational/managerial practice (I3) ▪ Teacher feedback about student work during seminars (I20) ▪ Mental mapping (I37) ▪ Teacher feedback about student work (projects, seminar papers, undergraduate/graduate thesis, etc.) (I39)	▪ Writing a "theoretical" undergraduate/graduate thesis, and calculation assignments during seminars (F8) ▪ Alternative teaching methods (role playing, mental mapping, recording media content) (F11) ▪ Lecturing using examples from business (F14)
Undergraduate GPA	▪ Teaching outside the classroom (e.g., company visits, field trips) (I38)	▪ Teaching outside the classroom (F15)
Graduate GPA	▪ Writing undergraduate/graduate thesis based on a case study field research (I26) ▪ Student forums (I48)	-
Member of a student association	▪ Lecturing using examples from organizational/managerial practice (I3) ▪ Discussion instead of lecturing (assumes that students prepared themselves in advance) (I7)	▪ Interactive lectures/seminars and learning through exercises, case studies, etc. (F3)
Student competition experience	▪ Computer simulations during seminars (I17) ▪ Working on real-life business projects/problems (e.g., case study competition) (I41) ▪ Playing strategic games or business decision-making simulations (I49)	-
Student exchange experience	▪ Teaching outside the classroom (e.g., company visits, field trips) (I38)	▪ Teacher feedback (F9) ▪ Internship, and outside lectures/seminars (F10) ▪ Teaching outside the classroom (F15)

Table 2 - Continued

Demographic factor	Teaching methods for which statistically significant differences were found	
	Individual TM	**TM bundles**
Work experience	▪ Lecturing using examples from organizational/managerial practice (I3) ▪ Internship (I43)	-
Relevant work experience	▪ Interactive lectures (involving students in discussion) (I5) ▪ Debates during seminars (I16) ▪ Writing undergraduate/graduate thesis based on a case study field research (I26) ▪ Group work on projects, seminar papers or critical reviews based on literature study (I31) ▪ Group work on projects, seminar papers or critical reviews based on case study (I32) ▪ Teaching outside the classroom (e.g., company visits, field trips) (I38) ▪ Teacher feedback about student work (projects, seminar papers, undergraduate/graduate thesis, etc.) (I39) ▪ Internship (I43)	▪ Interactive lectures/seminars and learning through exercises, case studies, etc. (F3) ▪ Teaching outside the classroom (F15)
Volunteering experience	▪ Interactive lectures (involving students in discussion) (I5) ▪ Group assignments (exercises, case studies, etc.) outside the classroom (I34) ▪ Internship (I43) ▪ Instructor forums (I47)	▪ Internship, and outside lectures/seminars (F10)

Table 2 displays individual TM and TM bundles statistically significantly more favourably assessed by female students, students with higher undergraduate or graduate GPA, students that are/were members of a student association, students that participated in student competitions, students that have a student exchange experience, students with work experience, students with work experience related to their field of study (relevant work experience), as well as students with volunteering experience. The only exception is the item "lecturing using examples from organizational/managerial practice" that was statistically significantly more favourably assessed by students without student association experience.

5. DISCUSSION AND CONCLUSION

5.1. Research implications

The study provides insights into making the teaching of management at the graduate level more effective. First, although it was expected that Generation Y students prefer "modern" tuition approaches, "traditional" teaching methods were assessed as more effective. The three most favourably prized individual TM and the two highest ranked TM bundles refer to lectures provided by university teachers using business examples and modern teaching aids. Respondents evaluated them really high on average (3.60 to 3.88 on a scale from 1 to 4), although the lecture method is considered largely inappropriate for the development of creative problem-solving capabilities (Berman Brown & Guilding, 1993). This is, however, in line with numerous previous findings revealing that the traditional lecture method is one of the most popular strategies among students for content delivery because of its helpfulness in exam preparation (e.g., Carpenter, 2006; Manalo, 2013; Rivkin & Gim, 2013). Apparently there is still no substitute for teacher's expertise in providing the necessary direction and guidance required to facilitate learning (Sebastianelli & Tamimi, 2011), especially when he/she uses new means of presentation (visual aids, videos, and web-based supplements to traditional courses) (e.g., Benković & Dobrota, 2012; Mahmood et al., 2013; Oprea et al., 2014; Pedró, 2005; Wilkinson et al., 2015). Interestingly, students appreciate more when lectures are handed by their teachers than by guest speakers from the business (ranked 8) or other academic institutions (ranked 18).

Secondly, when looking at the least beneficial methods, except passive lectures – lecturing without modern teaching aids or without involving students in discussions (I1, I6, and F16), three indeed "modern" individual TM are not considered effective – writing blogs (I50), media recording (I51) and student forums (I48), as well as using ICT while acquiring knowledge/skills in general (F14). Although it is acknowledged that the intensive use of ICTs may represent an opportunity for innovating and improving student learning (e.g., Pedró, 2005), and studies report that students achieve higher skill performance scores when using computer-assisted learning modules compared to conventional learning methods (e.g., Abbasi et al., 2013), our respondents do not believe in the teaching potential of "digital". This, however, corresponds to Manalo's (2013) finding of technology-enhanced learning being the least preferred. Furthermore, one of the three lowest scores was assigned to the TM bundle "student presentations during lectures and seminars" (F7), as students are generally resistant to teaching approaches that increase their out-of-class learning time and do not appreciate the additional workload (Rivkin & Gim, 2013).

Thirdly, it was expected that demographic factors determine respondents' attitudes toward different teaching methods (e.g., Fatima et al., 2007; Keri, 2002). However, only sporadic differences in respondents' attitudes related to socio-economic variables were found. Nine demographic variables explored exhibited statistically significant relationship with minimum one to maximum eight individual TMs, or zero to three TM bundles. "Relevant work experience" appears to be the most relevant demographic variable, as eight individual TMs were statistically significantly more favourably assessed by those students who already had a job that was closely related to their major. They assessed more positively various active-learning methods, probably because they understand their value for the real business practice.

Finally it has to be stressed that the list of individual teaching methods that we used in the empirical study is one of the most comprehensive ones in the contemporary literature, and as such can add to the body of existing work and knowledge related to teaching approaches.

5.2. Implications for university teachers

The student-centred learning approach or the transformative learning pedagogy that centres on the learners and not on the teacher (Manalo, 2013) is certainly the future, as there is the overwhelming consensus that it is more effective (e.g., Fatima et al., 2007; Locke & Ebron, 1998; Scott, Gray & Yates, 2013). Yet, a teacher-centred pattern (lecturing and teacher feedback) is still the preferred one among Generation Y FEB management students. The active-learning methods are not the most desired teaching methods at present for them, which is surprisingly, for example, immanent as well for USA (Rivkin & Gim, 2013) and Philippines (Manalo, 2013). However, as a balanced variety of teaching methods is always recommended (e.g., Al Maghraby & Alshami, 2013; Piercy et al., 2012), university level management teachers should use both "upgraded" traditional and "rational" modern tuition approaches. Moreover, they should be aware that student-oriented strategies are challenging logistically (Rivkin & Gim, 2013), and require continuous professional development of teachers (Tihi et al., 2008). Considerable resources should be therefore invested in the teaching infrastructure, but as well in the faculty. Specifically, as students' success and achievements depend on teachers' competences (Benković & Dobrota, 2012), in order to activate a student-centred pattern, university teachers have to be able as well as ready to design courses based on active-learning principles.

More precisely, the study results suggest that the traditional lecture method is not obsolete, and that the role of ICT in teaching is overvalued. Although FEB graduate management students, because of their Generation Y membership, are adept in using computers and internet, they still choose actual classroom experiences when learning management. However, as more children are visual learners now than in previous generations because of their visual environments (Kline, Van Gundy & Liu, 2003), modern teaching ads rich in visuals should be used while lecturing as well. Furthermore, our results imply that management teachers at the graduate level should move away from traditional lectures without teaching aids or without involving students, to methods that are more business oriented and interactive in nature. In order to enhance the learning experience of their students they have to incorporate examples from business in their lectures, teach using exercises and case studies, encourage internships, hold interactive lectures/seminars, and similar.

5.3. Limitations and future research

The limitation of this study was the use of a single institution and one graduate study program which limits the generalization of results. In addition, student perceptions may have been influenced by overall characteristics of the study program. However, as our main goal was to assess specifically FEB graduate management students' attitudes related to the effectiveness of various teaching methods for the purpose of regional meeting of management departments, this limitation is negligible. Yet, potential future studies should survey

students from other FEB graduate study programs, graduate programs in different branches of science (social sciences, humanities, natural sciences, technical sciences, and medicine), but as well undergraduate students. Namely, it is assumed that certain teaching methods are more suitable for some and not so effective in other fields. For example, the use of case studies constitutes a fertile area for teaching business ethics, business law, leadership and management skills (Naimi, 2007). More to it, students may not appreciate some teaching methods until later in their academic careers (Rivkin & Gim, 2013).

REFERENCES:

1. Abbasi, K., Hazrati, M., Pourali Mohamadi, N., & Fajaeefard, A. (2013). The effect of learning via module versus lecture teaching methods on the knowledge and practice of oncology nurses about safety standards with cytotoxic drugs in Shiraz University of Medical Sciences. *Iranian Journal of Nursing and Midwifery Research*, *18*(6), 483-487.

2. Al Maghraby, M. A., & Alshami, A. M. (2013). Learning style and teaching method preferences of Saudi students of physical therapy. *Journal of Family and Community Medicine*, *20*(3), 192-197.

3. Alharbi, H. A., Almutairi, A. F., Alhelih, E. M., & Alshehry, A. S. (2017). The learning preferences among nursing students in the King Saud University in Saudi Arabia: A cross-sectional survey. *Nursing Research and Practice*, 1-7.

4. Arasti, Z., Falavarjani, M. K., & Imanipour, N. (2012). A Study of teaching methods in entrepreneurship education for graduate students. *Higher Education Studies*, *2*(1), 2-10.

5. Baykan, Z., & Nacar, M. (2007). Learning styles of first-year medical students attending Erciyes University in Kayseri, Turkey. *Advances in Physiology Education*, *31*(2), 158-160.

6. Benković, S., & Dobrota, M. (2012). Application of teaching methods and techniques at Serbian universities: Progress over time. *Management*, *16*(63), 35-43.

7. Berg, J., Dickhault, J., Hughes, J., McCabe, K., & Rayburn, J. (1995). Capital market experience for financial accounting students. *Contemporary Accounting Research*, *11*(2), 941-958.

8. Berman Brown, R., & Guilding, C. (1993). A survey of teaching methods employed in university business school accounting courses. *Accounting Education*, *2*(3), 211-218.

9. Brainard, S. R., & Omen, J. L. (1977). Men, women, and learning styles. *Community College Frontiers*, *5*(3), 32-36.

10. Brown, M. (2005). Learning spaces. In: D. G. Oblinger, & J. L. Oblinger (Eds.), *Educating the Net Generation* (pp. 12.1-12.22). Retrieved from www.educause.edu/educatingthenetgen/.

11. Carpenter, J. M. (2006). Effective teaching methods for large classes. *Journal of Family & Consumer Sciences Education*, *24*(2), 13-23.

12. Cui, Y. (2013). An empirical study of learning outcomes based on active versus passive teaching styles. *International Journal of Education and Management Engineering, 3*(1), 39-43.

13. De Caprariis, P., Barman, C., & Magee, P. (2001). Monitoring the benefits of active learning exercises in introductory survey courses in science: An attempt to improve the education of prospective public school teachers. *The Journal of Scholarship of Teaching and Learning*, *1*(2), 1-11.

14. Dowling, C., Godfrey, J. M., & Gyles, N. (2003). Do hybrid flexible delivery teaching methods improve accounting students' learning outcomes?. *Accounting Education*, *12*(4), 373-391.

15. Eckleberry-Hunt, J., & Tucciarone, J. (2011). The challenges and opportunities of teaching ''Generation Y''. *Journal of Graduate Medical Education*, *3*(4), 458-461.

16. Fatima, A. H., Nik Ahmad, N. N., Megat Mohd Nor, P. N., & Mohd Nor, A. (2007). Accounting students' perceptions of effective teaching methods and instructor characteristics: Some Malaysian evidence. *Malaysian Accounting Review*, *6*(1), 101-128.

17. Golen, S., Burns, A. C., & Gentry, J. W. (1984). An analysis of communication barriers in five methods of teaching business subjects. *Journal of Business Communication*, *21*(3), 45-52.

18. Johnson, J. P., & Mighten, A. (2005). A comparison of teaching strategies: Lecture notes combined with structured group discussion versus lecture only. *Journal of Nursing Education*, *44*(7), 319-322.

19. Johnson, S. A., & Romanello M. L. (2005). Generational diversity: Teaching and learning approaches. *Nurse Educator*, *30*(5), 212-216.

20. Kellar, G. M., Jennings, B. E., Sink, H. L., & Mundy, R. A. (1995). Teaching transportation with an interactive method. *Journal of Business Logistics*, *16*(l), 251-279.

21. Keri, G. (2002). Male and female college students learning styles differ: An opportunity for instructional diversification. *College Student Journal*, *36*(3), 433-442.

22. Kerr, D., Troth, A., & Pickering, A. (2003). The use of role playing to help students understand information systems case studies. *Journal of Information Systems Education*, *14*(2), 167-171.

23. Kline, J., Van Gundy, K., & Liu, H. (2003). Student perceptions of technology-based teaching methods. Paper presented at the Annual meeting of the American Sociological Association, Atlanta. Retrieved from http://www.allacademic.com/meta/ p106888_index.html.

24. Kvavik, R. B. (2005). Convenience, communications, and control: How students use technology. In: D. G. Oblinger, & J. L. Oblinger (Eds.), *Educating the Net Generation* (pp. 7.1-7.20). Retrieved from www.educause.edu/educatingthenetgen/.

25. Laditka, S. B., & Houck, M. M. (2006). Student-developed case studies: An experiential approach for teaching ethics in management. *Journal of Business Ethics*, *64*(2), 157-167.

26. Locke, I., & Ebron, A. (1998). The SPHINX teaching method and its application to a Business finance course. *Financial Practice and Education*, *8*(1), 120-126.

27. Mahmood, A., Khatoon, F., Ali, M., Ejaz, S., & Qureshi, M. A. (2013). Perceptions and preference of contemporary teaching methods among university students of Pakistan – A cross-sectional survey. *Quarterly Medical Channel*, *19*(2), 13-16.

28. Manalo, M. V. (2013). Teaching strategies for Business ethics courses in the undergraduate accountancy curriculum. *DLSU Business & Economics Review*, *22*(2), 82-94.

29. McNeely. B. (2005). Using Technology as a learning tool, not just the cool new thing. In: D. G. Oblinger, & J. L. Oblinger (Eds.), *Educating the Net Generation* (pp. 4.1-4.10). Retrieved from www.educause.edu/educatingthenetgen/.

30. Michel, N., Cater, J. J., & Varela, O. (2009). Active versus passive teaching styles: An empirical study of student learning outcomes. *Human Resource Development Quarterly*, *20*(4), 397-418.

31. Miller, J. S. (2004). Problem-based learning in organizational behavior class: Solving students' real problems. *Journal of Management Education*, *28*(5), 578-590.

32. Minifie, J. R., Middlebrook, B., & Otto, V. (2011). Generational specific teaching methods applied to entrepreneurial students. *Business Renaissance Quarterly*, *6*(3), 77-94.

33. Mocinic, S. N. (2012). Active teaching strategies in higher education. *Metodicki obzori*, *7*(2), 97-105.

34. Mohammad, A. (2015). Experimental methods of teaching business studies: Practical approaches beyond lecturing. *International Journal of Core Engineering & Management*, *1*(12), 59-73.

35. Murphy, R. J., Gray, S. A., Straja, S. R., & Bogert, M. C. (2004). Student learning preferences and teaching implications. *Journal of Dental Education*, *68*(8), 859-866.

36. Naimi, L. (2007). Strategies for teaching research ethics in business, management and organisational studies. *The Electronic Journal of Business Research Methods*, *5*(1), 29-36.

37. Oblinger, D. (2003). Boomers, Gen-Xers, and Millennials: Understanding the new students. *Educause Review*, *38*(4), 37-47.

38. Oprea, A., Alupoaie, C., Tufă, A., & Drăghici, A. (2014). Using Facebook interface as a teaching method for predicting learning behaviour in University students majoring in Psychology. *Journal of Educational Sciences & Psychology*, *4*(1), 107-111.

39. Parrish, D. R. (2016). Principles and a model for advancing future-oriented and student focused teaching and learning. *Procedia – Social and Behavioral Sciences*, (228), 311-315.

40. Pedró, F. (2005). Comparing traditional and ICT-enriched university teaching methods: Evidence from two empirical studies. *Higher Education in Europe*, *30*(3-4), 399-411.

41. Perkins, D., & Saris, N. (2001). A jigsaw classroom technique for undergraduate statistics courses. *Teaching of Psychology, 28*(2), 111-113.

42. Peroz, I., Beuche, A., & Peroz N. (2009). Randomized controlled trial comparing lecture versus self-studying by an online tool. *Medical Teacher*, *31*(6), 508-512.

43. Pfahl, D., Laitenberger, O., Ruhe, G., Dorsch, J., & Krivobokova, T. (2004). Evaluating the learning effectiveness of using simulations in software project management education: results from a twice replicated experiment. *Information and Software Technology*, *46*(2), 127-147.

44. Piercy, N., Brandon-Jones, A., Brandon-Jones, E., & Campbell, C. (2012). Examining the effectiveness of experiential teaching methods in small and large OM modules. *International Journal of Operations & Production Management*, *32*(12), 1473-1492.

45. Pietrzykowski, M., & Szczyt, M. (2012). Applying the case study method in Lithuanian and Polish higher education. In: P. Ammerman, A. Gaweł, M. Pietrzykowski, R. Rauktienė, & T. Williamson (Eds.), *The case study method in business education* (pp. 395-54). Poznań: Bogucki Wydawnictwo Naukowe.

46. Reilly, P. (2012). Understanding and teaching generation Y. *English Teaching Forum*, *50*(1), 2-11.

47. Rivkin, A., & Gim, S. (2013). Student preferences rewarding teaching methods in a drug-induced diseases and clinical toxicology course. *American Journal of Pharmaceutical Education*, *77*(6), 1-7.

48. Rodrigues, C. A. (2005). Culture as a determinant of the important level business structure on ten teaching / learning techniques. A survey of university students. *Journal of Management Development*, *24*(7), 608-621.

49. Scott, T., Gray, A., & Yates, P. (2013). A controlled comparison of teaching methods in first-year university physics. *Journal of the Royal Society of New Zealand*, *43*(2), 88-99.

50. Sebastianelli, R., & Tamimi, N. (2011). Business statistics and Management science online: Teaching strategies and assessment of student learning. *Journal of Education for Business*, *86*(6), 317-325.

51. Skiba, D. J., & Barton, A. J. (2006). Adapting your teaching to accommodate the Net generations of learners. *OJIN: The Online Journal of Issues in Nursing*, *11*(2), 1-11.

52. Sternberg, J. (2012). It's the end of the university as we know it (and I feel fine): The Generation Y student in higher education discourse. *Higher Education Research and Development*, *31*(4), 571-583.

53. Sun, T-D. (1997). *Learning styles and preferences for teaching methods among nontraditional college students* (*Doctoral dissertation*). Faculty of the graduate school of Texas, Texas A&M University, Commerce

54. Škudienė, V. (2012). Case method education. In: P. Ammerman, A. Gaweł, M. Pietrzykowski, R. Rauktienė, & T. Williamson (Eds.), *The case study method in business education* (pp. 9-24). Poznań: Bogucki Wydawnictwo Naukowe.

55. Terenzini, P. T., Cabrera, A. F., Colbeck, C. L., Parente, J. M., & Bjorklund, S. A. (2001). Collaborative learning vs. lecture/discussion: Students' reported learning gains. *Journal of Engineering Education*, *90*(1), 123-130.

56. Tihi, B., Peštek, A., Husremović, D., & Childs, E. (2008). Comparison of the active learning method with the traditional approach in teaching delivery: Case of School of Economics and Business in Sarajevo. *Proceedings of the International Conference of the Faculty of Economics Sarajevo – ICES* (pp.1-10). Sarajevo: School of Economics & Business.

57. Van Eynde, D. F., & Spencer, R. W. (1988). Lecture versus experiential learning: Their different effects on long-term memory. *Organizational Behaviour Teaching Review*, *12*(4), 52-58.

58.   Weber, K., & Custer, R. (2005). Gender-based preferences toward technology education content, activities, and instructional methods. *Journal of Technology Education*, *16*(2), 55-71.

59.   Wehrwein, E. A., Lujan, H. L., & DiCarlo, S. E. (2007). Gender differences in learning style preferences among undergraduate physiology students. *Advances in Physiology Education*, *31*(2), 153-157.

60.   Wilkinson, D. M., Smallidge, D., Boyd, L. D., & Giblin, L. (2015). Students' perceptions of teaching methods that bridge theory to practice in dental hygiene education. *The Journal of Dental Hygiene*, *89*(5), 330-337.

61.   Wingfield, S. S., & Black, G. S. (2005). Active Versus passive course designs: The impact on student outcomes. *Journal of Education for Business*, *81*(2), 119-123.

62.   Yakovleva, N. O., & Yakovlev, E. V. (2014). Interactive teaching methods in contemporary higher education. *Pacific Science Review*, *16*(2), 75-80.

63.   Yoder, J. D., & Hochevar, C. M. (2005). Encouraging active learning can improve students' performance on examinations. *Teaching of Psychology*, *32*(2), 91-95.

64.   Young, M., Klemz, B., & Murphy, J. (2003). Enhancing learning outcomes: the effects of instructional technology, learning styles, instructional methods, and student behaviour. *Journal of Marketing Education*, *25*(2), 130-142.

Appendix 1 Final factor matrix, mean values and ranking by items

	Label	Item	Factor loading	M	Rank
1	Group work outside the classroom and during seminars, and writing "empirical" undergraduate / graduate thesis	Group work on projects, seminar papers or critical reviews based on case study (I32)	.810	3.08	27
		Group assignments (exercises, case studies, etc.) outside the classroom (I34)	.707	3.00	31
		Group work on projects, seminar papers or critical reviews based on literature study (I31)	.658	2.67	43
		Group work on exercises, case studies, etc. (I13)	.635	3.22	16
		Group work on comprehensive project during a whole semester (I33)	.496	2.65	44
		Writing undergraduate/graduate thesis based on a survey field research (I27)	.488	2.97	33
		Writing undergraduate/graduate thesis based on a case study field research (I26)	.437	3.24	13
2	Using ICT while learning and acquiring knowledge / skills, and working on teachers' scientific research projects	Studying internet content (e.g., internet pages, databases, videos) (I46)	.745	3.20	18
		Online lectures (I45)	.620	2.88	35
		Student forums (I48)	.600	2.49	48
		Instructor forums (I47)	.553	2.86	36
		Playing strategic games or business decision-making simulations (I49)	.499	3.09	26
		Blog writing assignments (I50)	.472	2.23	50
		Working on teachers' scientific research projects (I42)	.452	2.92	34
		Teleconferences (I52)	.410	2.51	47

	Label	Item	Factor loading	M	Rank
3	Interactive lectures/seminars and learning through exercises, case studies, etc.	Debates during seminars (I16)	.626	3.24	13
		Interactive lectures (involving students in discussion) (I5)	.597	3.51	7
		Discussion instead of lecturing (assumes that students prepared themselves in advance) (I7)	.556	3.11	25
		Presenting individual/group assignments solutions (I15)	.542	3.01	29
		Individual assignments (exercises, case studies, etc.) outside the classroom (I24)	.425	3.00	31
		Individual work on exercises, case studies, self-evaluation questionnaires, etc. (I12)	.405	3.07	28
		Computer simulations during seminars (I17)	.398	3.16	20
4	Reading outside the classroom and individual learning	Additional reading outside the classroom (e.g., of scientific articles, popular business literature) (I29)	.722	2.74	41
		Pre-reading (I28)	.688	2.78	39
		Individual learning (I30)	.484	3.31	10
5	Guest lecturing and watching education videos in the classroom	Guest lectures from the business (I8)	.757	3.43	8
		Guest lectures from other academic institutions (I9)	.674	3.20	18
		Watching education videos in the classroom (I36)	.488	3.16	20
6	Individual work on projects, seminar papers, etc., and working on real-life business projects/problems	Individual work on projects, seminar papers or critical reviews based on case study (I22)	.730	3.27	11
		Individual work on projects, seminar papers, critical reviews or essays based on literature study (I21)	.646	2.80	38
		Individual work on comprehensive project during a whole semester (I23)	.521	2.76	40
		Working on real-life business projects/problems (e.g., case study competition) (I41)	.384	3.27	11
7	Student presentations during lectures and seminars	Student presentations of seminar papers based on literature study (I18)	.744	2.58	45
		Student presentations of seminar papers based on case study (I19)	.703	3.12	24
		Lecturing about the predetermined topic by students (I10)	.504	2.54	46
8	Writing a "theoretical" undergraduate / graduate thesis and calculation assignments during seminars	Writing undergraduate/graduate thesis based on literature study (I25)	.710	2.73	42
		Calculation assignments during seminars (e.g., in mathematics, accounting, informatics, finances) (I11)	.493	3.24	13
9	Teacher feedback	Teacher feedback about student work during seminars (I20)	.738	3.53	6
		Teacher feedback about student work (projects, seminar papers, undergraduate/graduate thesis, etc.) (I39)	.641	3.56	5
10	Internship and outside lectures / seminars	Internship (I43)	.709	3.58	4
		Outside lectures/seminars (e.g., workshops organized by student associations, lectures by distinguished businessman/experts) (I44)	.513	3.22	16
11	Alternative teaching methods (role playing, mental mapping, recording media content)	Role playing (I14)	.668	3.14	22
		Mental mapping (I37)	.495	2.86	36
		Media content recording assignments (e.g., pictures, selfies, videos) (I51)	.458	2.45	49

	Label	Item	Factor loading	M	Rank
12	Peer assessment and learning	Peer-to-peer assessment related to student work (projects, seminar papers, etc.) (I40)	.671	3.14	22
		Collaborative learning (I35)	.422	3.01	29
13	Lecturing without teaching aids or involving students	Lecturing without teaching aids (e.g., PPT presentations, videos, internet) (I1)	-.772	1.89	51
		Lecturing without involving students in discussion (I6)	-.633	1.70	52
14	Lecturing using examples from business	Lecturing using business examples experienced by teacher him/herself (I4)	.690	3.88	1
		Lecturing using examples from organizational/managerial practice (I3)	.592	3.86	2
15	Teaching outside the classroom	Teaching outside the classroom (e.g., company visits, field trips) (I38)	.685	3.36	9
16	Lecturing using teaching aids	Lecturing using teaching aids (e.g., PPT presentations, short videos, internet) (I2)	.487	3.60	3

Note: For 20 items that had dual or triple loadings greater than .3 on more than one factor, only the highest loadings are presented.