“Ztudents” on X and Y Lenses in Turkey: Views of X and Y Generation Teachers about Certain Class Properties of Gen Z High-School Students

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Abstract  
The purpose of this study is to determine Z generation high-school students’ properties carried into class, and to reveal periodic factors and indicators for class motivations, study habits and class disrupting behaviours, according to X and Y generation teachers’ opinions. The study was in a qualitative phenomenological design. The study group was formed with multistage sampling, including criterion and disproportional quota sampling. Accordingly, 96 high-school teachers participated in the study group. The data was collected with a survey of open-ended questions and a semi-structured focus group interview. Content and descriptive analyses were used for data analysis. As a result, positive perspectives towards Z students’ properties, class motivations, studying habits, and class-disrupting behaviours were limited, whereas negative views were in the majority. Evident negative periodic factors were technology misuse, curriculum discordance, moral degeneration, and the negative indicators were weak time management, unplanned studying, improper studying, attitudinal and behavioural disorder. Z students’ properties are adversely reflected on in-class processes through mutually aggravating relations of periodic factors and behavioural indicators. X teachers had more adverse views pointing to Z students’ mostly inner properties for the negative studentship whereas, Y teachers drew attention to the disharmony between the Z cohort and educational environment.

Keywords: Generation, In-class Relations, Student Properties, Class Motivation, Studying Habit, Disrupting Behaviour, Curriculum

Introduction  
One of the most critical factors that determine education quality in schools is students’ attitudes and behaviours. Students’ behaviours affect various education layers such as class management, learning-teaching processes, measurement and assessment activities (Brophy, 1988).

In Today’s world, increasing and expanding technological opportunities lead to new working styles and habits. Paakari, Rautio and Valasmo (2019) suggested that digital labour has become one of the most fundamental components of the school and integrating it effectively with learning activities is an ongoing problem. With digital natives “Gen Z” in the class, both educators and students face a changing classroom, which should accommodate different learning paces, styles and needs (Santosa, 2017). In this direction, Initiative for Increasing Opportunities and Technologic Improvement (FATİH) project started by the Ministry of Education in Turkey in 2010 equipped 432.288 classrooms across the country with an interactive board with internet access as of October 2019 and distributed 1.437.800 tablet computers to teachers and students (“Turkey Parliamentary Question”, 2019). Thus, various digital interactive software became more accessible in the class. These developments might be proper for Z cohort, but it is necessary to keep in mind that teachers raised in different practices. As social change speed increases, expectations,
needs and understandings change in parallel, and this is crucial for teachers from previous generations to adapt (Schwieger and Ladwig, 2018). In this sense, Mücevher (2015) found that X academicians had negative evaluations towards Y students’ learning competence. Besides, Rickes (2016), argues that Gen Z is rooting to Gen Y, and being multi-taskers make Zers particularly apart from Xers.

Generational differences might cause disharmony on the students and teachers’ mutual group behaviours, which brings about generation theory into consideration. A generation shift from Y to Z began in high-school students since the 2013-2014 academic year, and by the end of the 2017-2018 term, schools consisted of mostly Zers (Kavalcı and Ünal, 2016; Seemiler and Grace, 2017). This study’s problem was to evaluate Gen X and Y teachers’ views towards Z generation studentship through current factors and certain class properties. In this context, this study aims to determine Z high-school students’ properties carried into class, class motivations, study habits, class-disrupting behaviours, according to X and Y generation teachers’ opinions.

Theoretical Background and Literature Review

Generation theory suggests that individuals raised in a particular period’s unique conditions develop similar attitude-behaviour patterns and compose a generation. In this sense, specific collective social and historical experiences with permanent impacts may lead to a generational identification (Chauvel, 2010; Xiangping, Xiang and Hudson, 2013). Individuals can settle in a context as another generation by getting away from their past by developing distinctive awareness (Hazzlet, 1992). The new generation continues to transform, re-define and develop solitary characteristics (Pendergast, 2010). In this frame, generation properties tried to be explored by focussing on inter-generation interactions (Strauss and Howe, 1997; Costanza, Badger, Fraser, Severt and Gade, 2012). However, there are criticisms for drawing generational border lines with plenty of alternative explanations but limited evidence (Costanza et al., 2012; Giancola, 2006; Parry and Urwin, 2011), also shows the need for widening confirmatory investigations in alternative interaction fields. Brief characteristics of X, Y and Z generations related to the scope of this study are presented below.

Generation X includes individuals born between 1965 and 1980. They struggled uncertainties of a turbulent world and is also known as “lost generation”. Future anxiety led them to work hard, be disciplined and achieve career (Altuntuğ, 2012). They can face their problems on their own, which increases their self-confidence, but limits collective working skills. They lack multitasking skills. In work life, they are loyal, comply with extended office hours and work in the same job for long years with a high motivation. Xers are more straightforward than other generations, and they respect authority. Since they coincided with the technological revolution, they needed to adapt to technology (Çakmak, 2013).

Y generation “millenials” consists of individuals born between 1980 and 2000. This cohort is named “WHY” as they question everything and is abbreviated as Y. They can multitask with the fast knowledge acquisition process and high adaptability. Yers are passionate, safe, optimistic, tend to work collectively (Wilson and Gerber, 2008) and take responsibilities to move forward, but they can get bored of works they are not interested in (Kowske, Rasch and Wiley, 2010). Besides, rejection of authority, regular and long office work hours, desire for a work-life balance, feedback expectations, self-management and entrepreneurship are some of their dominant properties. One fundamental value of this generation is a sense of justice (Yiğit Seyfi, 2016).

Gen Z cohort was born from the beginning of the 2000s in the internet age. Different resources have named this generation as “Digital Generation”, “Digital Natives”, “Generation I”, “Instant Online”, “Generation M” (mobile, multitasking). Zers have friendships over the internet, play digital games rather than physical, use social media rather than e-mail, shop online rather than street stores, research, and learn anything whenever/wherever they want (Kavalcı and Ünal, 2016). This cohort, also known as “Silent Generation” for silent reactions with communication tools, presumably will be alone due to excessive individualisation (Toruntay, 2011). Z generation is multi-tasker and perceives the internet and technology as a natural living standard rather than addiction. Whereas, Kirschner and De Bruyckere

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(2017) argued that being a digital native multi-tasker was a myth for Z cohort; they experience a digital connected world, but they are not capable of dealing with technologies in the way which is often ascribed to them (i.e., that they can navigate that world for efficient learning).

Generation characteristics can play more or less role in any social interaction, and generation theory offers dynamic, socio-cultural and theoretical framework rather than individual focus (Pendergast, 2007). Generation studies have been mainly conducted in the business field to understand consumption preference or work attitude or behaviour of generations (Parry and Urwin, 2011). Reeves (2006) stated that there were a limited number of generation theory applications in the education field and argued the individual differences in pedagogy as a cause for this limitation. Nevertheless, recently with Zers’ enrolment into classrooms, research regarding Z cohort in education has boosted with the following sample of results: Zers need effective use of different and frequent learning spaces, blending face-to-face and online learning, providing improved interaction, collaboration and continuous feedback opportunities, reflections on their learning (Santosa, 2017). Mládková (2017) characterised Zers as confident, of high self-esteem, aware of the trends, besides having problems with reading long and complex texts due to short attention span. They can collect information but often miss the context when they interpret. Accordingly, educators should consider generational differences might help the class dynamics (Mohr and Mohr, 2017).

**Method**

This study is a phenomenologic designed qualitative research. The study was conducted with a multi-stage sampled group.

**Sample**

The study group consisted of 96 teachers as 67 male and 29 female from 6 high schools in the 2018-2019 academic year. The group was formed by multistage sampling, which combines sampling methods (Mertens, 2010). X and Y teachers who have experience competence with Z students was provided by criterion sampling, while branch-variety by disproportional quota sampling.

Criterion sampling is including individuals who meet particular criteria (Palys, 2008). The teachers’ ages to be between 40-54 years for X, 25-39 years for Y generations, and to have at least five years of teaching experience towards Zers, were the sampling criteria.

Disproportional quota sampling adds individuals to relevant categories, free from the original populations to reach a balanced category numbers (Gomm, 2009). Accordingly, the study group consisted of five branch groups, gathering related branches. Branch groups’ generation-data collection method distributions are given in Table 1.

| Branch Group                          | Open-Ended Question Form | Focus Group Interview |
|--------------------------------------|--------------------------|-----------------------|
|                                      | Gen X  | Gen Y  | Total | Gen X  | Gen Y  | Total |
| Turkish Language and Literature      | 9      | 9      | 18    | 1      | 1      | 2     |
| Mathematics                          | 9      | 9      | 18    | 1      | 1      | 2     |
| Social Group (History, Geography, Philosophy, Religion) | 9      | 9      | 18    | 1      | 1      | 2     |
| Science Group (Physics, Chemistry, Biology) | 9      | 9      | 18    | 1      | 1      | 2     |
| Others (IT, Foreign Languages, Counselling, Art, Music, Physical Education and Sports) | 12     | 12     | 24    | 1      | 1      | 2     |
| Total                                | 48     | 48     | 96    | 5      | 5      | 10    |

As seen in Table 1, open-ended question forms were applied to 48 X and 48 Y teachers. The branch groups were equally (n=9) distributed, except for the “others” group, which was higher (n=12) due to the number of gathered branches. Ten teachers were included in the focus group, in pairs of branch groups consisting of one X and one Y teacher.
Data Collection Process

Data were collected through the sub-problems presented below:

• What are Gen Z high-school students’ properties carried into class?
• What are the positive generational factors and indicators for Gen Z high-school students’ (a) class motivations, (b) study habits, (c) class-disrupting behaviours?
• What are the negative generational factors and indicators for Gen Z high-school students’ (a) class motivations, (b) study habits, (c) class-disrupting behaviours?

For the first sub-problem, semi-structured focus group interview was held to obtain collective data by debating about Z students’ properties carried into class. For the remaining sub-problems, open-ended question forms were applied to the entire of the study group.

Generation theory literature was reviewed to determine the focus group interview items and the open-ended questions of the survey, and candidate questions were prepared. These questions were presented for expert reviews. Then pilot applications were conducted with ten teachers, where recording devices were tested, probing questions were developed and survey instructions/questions were edited through the feedbacks (Saldana 2011). Finally, four types of: ‘essential’, ‘probing’, ‘throw away’ and ‘extra’ questions formed the focus group interview, as given below (Berg, 2001). Considering Gen Z high-school students;

Essential question 1) How do you think the students’ class properties are shaped? Probing Questions: (a) what are the students’ current positive and negative properties?, (b) what are the periodical conditions that shape these properties?, (c) what role do periodical conditions play on shaping students’ properties?

Essential question 2) How do students’ properties affect in-class relationships and behaviours? Probing Questions: (a) how do you evaluate students’ in-class relationships and behaviours?, (b) which student properties would you link with in-class behaviours?, (c) how do students’ properties reflect the in-class relationship and behaviour quality?

Throwaway questions were used for focus changes and transitions such as “would you explain how these student properties reflect on behaviours, please?”. Additionally, extra questions such as “should I understand this as ....?; “did you mean....?” used for participant confirmation contributing to the reliability of the collected data.

Open-ended questions were prepared to collect written data as follows: (1) how are class motivations of Z students?; (2) how are study habits of Z students?; (3) how are class disrupting behaviours of Z students? Please, explain your reasons for each question.

Before the data collection, the study group were briefly informed about generation theory by avoiding subjective expectations, and teachers were asked to write answers depending on their experiences since the 2013-2014 academic year regarding Z students.

Data Analysis

Firstly, all collected data were classified into X and Y teachers to determine the differences and similarities. Data collected with the focus group interview was subjected to descriptive analysis. In this analysis, data can be organised under a theme uncovered by the research question (Yıldırım and Şimşek, 2018). The first sub-problem established a core theme, and the data was reduced towards the core in a deductive manner to interpret the findings (Strauss and Corbin, 1998). Italic direct quotations with T1, T2... codes used to support the interpretations.

Data collected with open-ended question forms were analysed with content analysis. In content analysis, the coding framework can be structured formally or flexibly, depending on the research problem (Julien, 2008). Positive and negative “factors” and “indicators” of class motivation, study habit and class-disrupting behaviour dwelled as the formal themes.

The positive codes were presented directly without forming subthemes, since the codes were minimal; while, the codes under negative themes were categorised through content analysis. When a subtheme belonged solely to X or Y teachers, it is called “uncommon”. The frequency values were levelled to determine an emphasis strength. For this purpose, the sample size of X and Y teachers, which
were 48 for each was divided into three interval. The uncommon subtheme frequencies between $1 \leq f < 16$ was considered as “weak”, $16 \leq f < 32$ as “medium”, and $32 \leq f$ as “strong” levels.

Shared opinions of X and Y teachers called as “common”, and to determine emphasis strength the related intervals were multiplied by two since the sample size was two times, in this case. Therefore, $1 \leq f < 32$ were considered as “weak”, $32 \leq f < 64$ as “medium”, and $64 \leq f$ as “strong” levels.

Themes, subthemes, codes and frequency values for each were presented with tables. X and Y teachers’ remarkable codes were expressed with their frequency values by using notations $f_X$ for Xer and $f_Y$ for Yer in parentheses.

Coder reliability was used to ensure the reliability of the coding procedure. The data were separately coded by the researcher and an expert, and the agreement rate were examined by the following formula (Krippendorff, 2011): 

$$\text{Number of codes with consensus}/(\text{Number of all codes})$$

The coder reliability value was 0.91; thus, coding found consistent. Uncompromised codes were re-discussed and placed under suitable subthemes.

The teacher “generational glasses” was constituted to keep all the findings in eye view in the discussion section. Common views were located into the intersection zone of the scheme as the “Common Lens”, while uncommon ones were settled in the Gen’s own parts with “X’s Lens” or “Y’s Lens”.

Results

In this section, results obtained from the collected data were presented through the sub-problems, respectively.

Results of the First Sub-Problem

Within the first sub-problem, Zers’ properties, carried into class, were determined and listed below by grouping for X and Y generation teachers. Gen X teachers’ views:

T1 coded teacher stated that students’ class motivation has a negative tendency. They have ungrounded self-confidence. They do not work to gain knowledge, nor know the value of labour.

“Students have unsubstantial self-confidence. They don’t have any knowledge but tons of ideas. (…) Students have a constant tendency to consume. They don’t have an adequate sense of labour, don’t have a thought as my mother cooked for me, worked hard, so I should eat it. They don’t realize teachers’ efforts, so it is easy for them to ignore the class.” (T1)

T2 coded teacher stated that students’ internet addiction have led them to an “information obesity” through useless information, causing weariness and lack of focus.

“Students are subjected to too much stimulus, causing distraction. There is information bombarding with smartphones. Individuals are now obese of knowledge. Like junk food, they get lots of junk information. They need an information diet. Internet is full of incorrect information spreading via copy and paste. We need to develop awareness to check the validity of information. (...) Within a huge information flow, their mind becomes an information dumpster; lots of things in the mind, but most of them just seem to be there” (T2).

T3 coded teacher expressed that students’ motivation and studying habits are in a negative path, students have behaviour problems such as disinterest and disrespectful attitude.

T4 coded teacher stated that increasing class hours in high-school decreased interest in class, and increased the behaviours disrupting the class. Students’ excessive being in digital world make harder to perform a balanced physical, emotional and social development.

“Today, students overloaded with classes. Students don’t have time to discharge. (...) In our childhood, we played games on the streets, which had mental, physical, emotional and social contributions; now, children lack these inside digital games (T4).”

T5 coded teacher presented a distinctive perspective for students’ behaviour perception and expressed that teachers tend to perceive students based on the period they were raised in; however, they need to adjust their consideration through students’ current period.

“Ali (former prominent Islamic Caliph) says, raise your children, not according to the times you were raised, but for the period they live in.
Sometimes children make mistakes that may seem huge, we may question “how can a child make such a mistake?” We may think that we wouldn’t do that when we were child. Under the current conditions, the child’s mistake may be acceptable. We fail if we do not understand periodical changes but force it. (T5).”

Gen Y teachers’ views:

T6 coded teacher emphasised students’ lack of ideals. Thus, students can quickly become internet and technology addicts, and students’ class-disrupting behaviours increase.

“I believe that individualism is increasing, and differences should better be managed. When individual properties were ignored, pupils might see education as meaningless, leading to an ideal lack. Steps should be taken for individual customise of the curriculum? (T6).

T7 coded teacher stated that students’ motivation decrease recently. Students are open to information pollution, causing them to be insensitive; nevertheless, underpinning their creative thinking abilities.

T8 coded teacher emphasised that Zers suffer a perceptual disorder, showing spoiled and egocentric attitudes, and being busy with smartphone during class negatively reflect on in-class behaviours.

“Students are disinterested; they don’t take notes, instead taking photos of the board. In the middle of the class, they say “this is enough for today”. Lots of students don’t care about the class. They are interested in their phones during class (T8).”

T9 coded teacher emphasised that students lack perception and have problems with abstract thinking due to reading fewer books.

“Today rapidly changing stimulants keep Youngers’ mind busy, which prevents focusing. It is tough for children to read a book; instead, they want to access a summary on the internet. Moreover, everything around is being visualised, and this limits abstract thinking and imagination (T9)”

T10 coded teacher mentioned that students have become individuals used by technology rather than being technology users, limiting associative thinking skills and leading to become consumption-oriented.

“The internet and social media drag students, unifying the differences. Students’ free and relational thinking skills are getting weaker. They read so many things, but how many of them can tell a joke, effectively connect an event with others (T10).”

X and Y teachers’ common views showed that Z students’ properties are adversely reflected on in-class processes within the periodic conditions.

Results of the Second Sub-Problem

Within the second sub-problem, the positive factors and indicators of students’ (a) class motivations, (b) study habits, (c) class disrupting behaviours are presented in Table 2.

| Themes                          | X Teacher Factors (f) | Y Teacher Factors (f) | X Teacher Indicators (f) | Y Teacher Indicators (f) | Total (f) |
|--------------------------------|-----------------------|-----------------------|--------------------------|--------------------------|-----------|
| Class Motivations              | Visuality of smart boards (2) | Increased active teaching methods (16) | Increased exam awareness (3) | Self-proving student efforts (1) | 22        |
| Study Habits                   | Self-sufficiency (1) | Effective studying techno-tools (8) Increased practical classes (3) | - | Increased question solving by using resources (3) | 15        |
| Class-Disrupting Behaviours    | Delicate social surrounding (1) | Correct use of technology (1) | Decrease in rude behaviours (1) | Increased class participation (3) | 6         |
| Total (f)                      | 4                     | 28                    | 4                        | 7                        | 43        |

Table 2: Teachers’ Positive Factor and Indicator Codes for Z students’ Certain Class Attitudes and Behaviours
As seen in Table 2, positive factors for students’ class motivation were only X’s “visuality of smart boards” and Y’s “increased active teaching techniques” both with “weak” statements. In terms of positive class motivation indicator, there were only X’s “increased exam preparation awareness” and Y’s “students’ efforts to show and prove themselves” also with “weak” expressions. All the positive class motivation factors and indicators were at weak levels both for X and Y teachers.

In the context of study habits, 1 X teacher used the “self-sufficiency” statement, and Y teachers had a total of 11 comments with “effectively using technologic tools” and “increased practical education classes”. There was no Xer positive indicator while, there were three statements of Y teachers as “increase in question-solving by using resources”. 1 X and 14 Y teachers’ “weak” views were encountered under the “Positive Studying Habit” theme, in total.

There were just one positive periodic factor statements for each teacher cohort in the class-disrupting behaviours theme, with X’s “delicate social surrounding” and Y’s “correct use of technology”. Also, there was only one view for X as “decrease in rude behaviours” and three statements for Y as “increased class participation”.

In the positive factors and indicators framework, all themes included weak level codes. The frequencies gradually decreased from class motivation to the class-disrupting behaviour themes.

Results of the Third Sub-Problem

The third sub-problem was to determine the negative factors and indicators for Z high-school students. Negative factors and indicators are presented in Table 3 and Table 4, respectively.

As seen from Table 3, the themes of the study were settled through the header of the columns with X and Y cohorts division and generated factor subthemes were located through the rows’ header. Through negative factors under the class motivation theme, “technology misuse”, “curriculum discordance”, “moral degeneration” were all medium level common subthemes; whereas “future uncertainties” was peculiar to X teachers at medium level, while “socioeconomic challenges” to Y teachers at weak level. In the studying habits theme “technology misuse” at medium level and weak level “curriculum discordance” were the common factors; while “personal demotivation” was peculiar to X at medium level, “environmental demotivation” and “teaching incapability” were peculiar to Y both at weak level. In class-disrupting behaviour theme, “technology misuse”, “moral degeneration”, “curriculum discordance”, teaching incapability” were common factors with weak level; while “emotional challenges” and “education policy” were peculiar factor to X and “negative parent attitude” to Y all with weak levels.

X and Y teacher views generated 11 negative factor subthemes in total; five of these factors were common among various themes. The foremost “technology misuse” was the only subtheme common in all the three themes. The following “curriculum discordance” subtheme was common for class motivation and studying habit themes; and, it was a relatively overweighing factor for Y teachers in class-disrupting behaviour. The third “moral degeneration” subtheme were common, but higher for X teachers both in class motivation with medium level and class-disrupting behaviour with weak level. The ensuing subthemes “teaching incapability” and “negative parent attitudes” subthemes were partially shared, relatively higher for Y teachers.

There were 328 codes in total, 162 of them were under the class motivation, of which 107 were by X and 55 by Y teachers, so X’s negative codes for class motivation theme was nearly two times of Y’s. 85 codes were under the studying habits theme as 44 belonged to X and 41 belonged to Y, while 81 codes were under the class-disrupting behaviours as 43 were X’s and 38 were Y’s. X teacher codes were also slightly higher for studying habits and class-disrupting behaviours.
### Table 3: X and Y Teachers’ Negative Factor Codes for Z Students’ Class Motivation, Studying Habit and Class Disrupting Behaviours

| Sub-Theme (Total:f) | Class Motivation Theme | Studying Habit Theme | Class-Disrupting Behaviours Theme |
|---------------------|-------------------------|----------------------|----------------------------------|
|                     | X Teacher Factors (f)   | Y Teacher Factors (f)| X Teacher Factors (f)            |
|                     |                         |                      | Y Teacher Factors (f)            |
|                     |                         |                      | X Teacher Factors (f)            |
|                     |                         |                      | Y Teacher Factors (f)            |
| Technology Misuse (Total:128) | Digital addiction (20) Effortless info access (8) Crowded mind (3) Negative impacts of mass media (2) Virtual social status desire (1) | Digital addiction (10) Negativities of mass communication tools (7) Effortless info access (5) | Digital addiction (15) Alternative learning replacing class learning (9) |
|                      |                         |                      | Digital addiction (20) Alternative learning replacing class learning (7) |
|                      |                         |                      | Digital addiction (4) Alternative learning replacing class learning (3) |
|                      |                         |                      | Techno-pedagogy adaptation problems (3) |
|                      |                         |                      | Finding ready stuff (1) |
| Sum                 | 34                      | 22                   | 24                                |
| Curriculum Discordance (Total:63) | Excessive class hours (8) Uncertainties in education and exam system (6) Ease in passing grade (4) Reducing education to instruction (2) Frequent changes in the curriculum (1) Target-skill mismatch(1) | Uncertainties in education and exam system (11) The insufficient class selection system (5) Mandatory high school education (3) Exam preparation courses replacing school (1) Excessive class hours (1) | Classes excluded in the university attendance exams (1) |
|                      |                         |                      | Classes excluded in the university attendance exams (2) |
|                      |                         |                      | Uncertainties in education and exam system (1) |
|                      |                         |                      | Insufficient education opportunity in school(1) |
|                      |                         |                      | Lack of recreation (1) |
| Sum                 | 22                      | 21                   | 3                                 |
| Moral Degeneration (Total:53) | Effortless gain desire (14) Moral corruption (4) Depreciation in teachers’ value (4) Wrong media models(1) Loss of fundamental values (1) Consumption desire (1) | Depreciation in teachers’ value (6) Effortless gain desire (2) | Effortless richness desire (1) |
|                      |                         |                      | -                                |
|                      |                         |                      | Depreciation in teachers’ value (8) |
|                      |                         |                      | Wrong media models(3) |
|                      |                         |                      | Grade surpassing values (1) |
|                      |                         |                      | “Limitless freedom” idea of the students (1) |
|                      |                         |                      | Depreciation in teachers’ value (7) |
| Sum                 | 25                      | 8                    | 1                                 |


| Emotional Challenges                          | Increased romantic relationships (2) | Lack of self-confidence (1) | Excessive interest in popular culture (1) | Lack of experiencing social emotions (1) | Emotion control lack (2) | Lack of self-value (2) | Confusing virtual world culture (2) | Increased romantic relationships (1) | Lack of responsibility (1) | Egocentrism (1) | Excessive self-confidence (1) | Lack of love and mercy (1) |
|---------------------------------------------|--------------------------------------|-----------------------------|-------------------------------------------|-------------------------------------------|--------------------------|-----------------------|-------------------------------|-----------------------------------|-----------------------------|------------------|-----------------------------|---------------------------|
| Sum                                         | 5                                    | 2                           | 1                                         | 3                                        | 2                        | 4                     |                               |                                    |                              |                  |                             |                           |

| Teaching Ineffectiveness (Total: 16)        | Insufficient teacher formation (1)   | -                           | -                                         | -                                        | The negative attitude of teachers (3) | Teachers’ insufficient following (1) | Perceiving student’s free-thinking as disrespect (1) | Unattractive teaching methods (4) |
| Sum                                         | 1                                    | 1                           | -                                         | 3                                        | 2                        | 4                     |                               |                                    |                              |                  |                             |                           |

| Negative Parent Attitudes (Total: 8)        | Underpinning students’ undesired behaviours (1) | Negative parent attitude (1) | -                                         | -                                        | Negative parent attitude (1) | -                     |                               | Negative parent attitude (4) | Parents’ educational insufficiencies (1) |
| Sum                                         | 1                                    | 1                           | -                                         | 1                                        | -                        | -                     |                               |                                    |                              |                  |                             |                           |

| Other Subthemes (Total: 49)                 | Insufficiencies of universities for occupational purposes (18) | Insufficient career counselling (1) | Socioeconomic insufficiencies (3) | Lack of interest (6) | Lack of researcher spirit (4) | Lack of purpose (4) | Decreased patience (2) | Environment preventing from studying (6) | Policies making students superior (2) | Increased number of students in classes (1) | Lack of sanction power towards indiscipline (1) | Casual wear replacing uniform (1) |
| Sum                                         | 19                                   | 3                           | 16                                        | 6                                        | 5                        | 4                     | 2                            |                                    |                              |                  |                             |                           |

| Overall                                      | 328                                  | 55                          | 44                                        | 41                                       | 43                       | 38                    |                               |                                    |                              |                  |                             |                           |
### Table 4: X and Y Teachers’ Negative Attitude-Behaviour Indicator Codes for Z students’ Class Motivation, Studying Habit and Class Disrupting Behaviours

| Sub-Theme | Class Motivation Theme | Studying Habit Theme | Class-Disrupting Behaviours Theme |
|-----------|-------------------------|----------------------|----------------------------------|
|           | X Teacher Indicators (f) | Y Teacher Indicators (f) | X Teacher Indicators (f) | Y Teacher Indicators (f) |
| Weak Time Management | Excessive occupation with social media (11) Excessive occupation with digital technologies (10) Sleeping late (2) Bulkiness (1) | Excessive occupation with digital Technologies (12) | Irregular studying (13) Decreased study time (12) | Disinterest/Not caring about class (17) Lack of purpose (10) Lack of rules/ discipline (10) Disrespect (7) Melancholic and stray attitudes (1) |
| Unplanned Studying | Total (46) | Irregular studying (13) Decreased study time (12) | Not studying until the final grade (1) | Disinterest/Not caring about class (3) Lack of purpose (2) Lack of future anxieties (2) Lack of motivation (1) Disrespect (1) Lack of readiness (1) Learning only for grades (1) |
| Sum | 24 | 9 | 45 | 10 |
| Reduction of Learning Quality | Learning based on grades/exam (3) Not feeling forced to learn at school (2) Get ready information, instead of producing (1) Lack of learning effort (1) | Rote learning (4) Learning based on grades/exam (4) Not feeling forced to learn at school (2) | - Reading less book (5) - Lack of focus (4) - Decreased note-taking (4) - “copy-paste” learning (4) - Studying with confusing devices such as earphones, music etc. (1) - Studying without purpose (1) - Rote studying (1) | - Making noise and weird movements (7) - Hurting surrounding (3) - Harsh/absurd jokes (2) - Improper outbursts of self-confidence (1) - Wasting time (1) - Not getting ready for class (1) - Abnormal romantic relationships (1) - Stray behaviours (1) - Tendency for cheating (2) |
| Total (32) | 20 | 12 | 19 | 9 |
| Overall | 7 | 10 | 20 | 12 |
| Sum | 212 | 31 | 45 | 21 |
| Total | 32 | 21 | 64 | 19 |
In Table 4, teachers’ codes provided six common negative behaviour indicators for Z students. The negative indicators were at medium level “weak time management” and weak level “reduction of learning quality” with total of 63 frequency under the class motivation theme; “unplanned” and “improper” studying both medium level with total frequency of 66, and under the studying habit theme; “attitudinal disorder” as the highest medium level subtheme and “behavioural disorder” weak level with total frequency of 84 under the class-disrupting behaviour theme. However, all the subthemes were common there were remarkable frequency differences in favour of Xers in the following subthemes: “attitudinal disorder” with 45 by X, while 11 by Y, “behavioural disorder” with 19 by X, while 9 by Y, “unplanned studying” with 25 by X, while 9 by Y and “improper studying” with 20 by X, while 12 by Y.

The overall negative indicators consisted of 212 codes, and 140 X teachers’ codes were nearly two times of 72 Y teachers’ codes. The frequency values were close for Xers and Yers in class motivation theme, while the values were distinctive in favour of X teachers in the study habit theme with 45 for Xers and 21 for Yers, and even higher difference emerged in class-disrupting behaviours with 64 for Xers and 19 for Yers.

There were some noticeable codes when Table 3 and 4 were examined in a holistic approach. Featured common negative factor codes were, “digital addiction” with 79 codes (fX:39; fY:40), “depreciation in teachers’ value” with 25 codes (fX:11, fY:14), “effortless info access” with 13 codes (fX:8; fY:5), “alternative learning replacing class learning” with 19 codes (fX:12, fY:7). Also, there were particular codes highly in favour of X teacher cohort such as “insufficiencies of universities for occupational purposes” 18 codes (fX:18, fY:0), “effortless gaining desire” 17 codes (fX:8; fY:5), whereas in favour of Y teachers “uncertainties in education and exam system” 19 codes (fX:6; fY:13), “negative parent attitudes (fX:0, fY:6).

The salient common indicator codes (Table 4) were as the following, “excessive occupation with digital technologies” with 22 codes (fX:10, fY:12), “excessive occupation with social media” with 21 codes (fX:11, fY:10), whereas “irregular studying” with 20 codes (fX:13, fY:7), “disinterest/not caring about the class” with 20 codes (fX:17, fY:3), “decreased study time” with 13 codes (fX:12, fY:1), 8 “making noise and weird movements” (fX:7, fY:1), 8 “lack of purpose” (fX:6, fY:2) were X teachers more weighted codes. These codes are strongly relevant with the technology misuse, curriculum discordance and moral degeneration subthemes, showing their reflection on Zers attitudes and behaviours.

**Discussion**

The results were discussed by representing generational glasses figures to ease the discussions, below. Results of the first sub-problem for Zers’ properties carried into class, were presented with the lenses of X and Y teachers, as shown in Figure 1:

**Figure 1: X and Y Teachers’ Lenses through Zers’ Properties Carried into Class**

As seen in Figure 1, Zers’ in-class properties were all negative except the creative thinking in the Y side. Shared properties were technology addiction, disinterest and lack of focus. X teachers underlined that superficial knowledge flow caused an unsubstantial self-confidence, decreased interest to the class and behaviour problems such as carelessness and disrespect emerged. Teachers stated that students became “information obese” through useless info accumulation through the internet. Likewise, Johnson (2013) remarked that information bombardment led to a mental obesity and skewed reality perception. This may partially shed light on undesired in-class behaviours of Zers. Eşitti (2015) identified that university students fail in efficient time management due to problematic internet use. In this study, X generation teachers’ expressed that limited access to information was a limitation in the past,
but today, purposeless and uncontrolled access to information cause mental tiredness and distraction. Therefore, teachers proposed an “information diet”, as Özcan (2019) advised developing pupils’ internet awareness to reach correct and qualified knowledge.

Y teachers expressed that students are lack of ideals, dragged within artificial agendas and fail to develop a consistent worldview, reflecting as disinterest, emotional problems, lack of empathy, lack of abstract and associative thinking skills and egocentrism. In contrast, one Y teacher mentioned that huge information flow improves creative thinking skills. Being multi-taskers shortens Zers’ focussing spans as to adapt quick-shifting between various tasks, which may accelerate their creative thinking; however, may complicate intensive focus on a single issue (Rothman, 2016), parallel with Zers’ “distraction” and “lack of focus” findings.

The second sub-problem was to inquire the positive factors and the indicators in the context of the class motivation, studying habit and class-disrupting behaviours. The foremost result was positive expressions were very few, which were not suitable to categorise. Therefore, these codes were directly presented inside the generational glasses’ cells by dividing the three themes in the vertical axis and two parts in the horizontal axis as factors and indicators, as seen in Figure 2.

Figure 2: X and Y Teachers’ Lenses through Zers’ Positive Factors and Indicators

Results of the second sub-problem were as follows: X and Y teachers shared no common positive codes. Also, the codes were scattered depending on personal understandings. Solely, education technology advancement partly perceived as a positive factor with “increased active teaching techniques” in class motivation theme, “effectively using technologic tools” in studying habit theme and “correct use of technology” in class-disrupting theme, and under the three main themes 28 Y teachers in total (medium level) emphasised education technology as beneficial. In comparison, only 2 of X teachers (weak level) stated it by “visuality of smart boards”. Also, except 3 Y teachers’ “increased question solving by using resources”, there were no positive indicator through the education technology evolution.

Considering periodic factors and indicators, the education technology development did not contribute to students’ as expected. Güllüpınar, Kuzu, Dursun, Kurt and Gültekin (2013) examined parents’ view towards expanding education technology, and met with negative statements like disinterest in reading and socialising problems. Juvonen, Tanner, Olin-Scheller, Tainio and Slotte (2019) found that while digital devices have some benefits in enriched classes, at the same time led students to feel “being stuck”. As information processing was slower in the previous times, students had more time for note-taking, internal questioning and deepening. The fast flow of information limits the time for multidimensional thinking and “decreased note-taking” can also be evaluated within this scope. Bircan (2019) emphasised that teaching technologies wore students by overloading, so disinterest occurred contrarily the idea of enhancing the entertainment with new technologies.

In the negative axis of the third sub-problem, X and Y teachers highlighted Zers’ strong adverse factors and indicators. Since plenty of subthemes were revealed, the negative factors and indicators were handled, respectively (Fig. 3 and Fig. 4). The sub-results were discussed through the common and uncommon subthemes. Shared subthemes of X and Y teachers were located inside the common lens, while a subtheme peculiar to X or Y placed in the related lens. Common subthemes with higher favoured by a teacher cohort were located partly in the common lens extending to the relevant side depending on the frequency difference. Also, subtheme names were written with big, medium and small font sizes to distinguish teachers’ emphasise levels.

As seen in Figure 3, negative factors were more weighted in the X’s circle. The common lens, mainly reflected the two items: “technology misuse” and
“curriculum discordance”. “Technology misuse” was a major common negative factor. It was also corresponding with the focus group interview finding “internet addiction led students to information obesity”. As the weak time perception and attention tiredness as acute symptoms of information obesity argued by Johnson (2013), “technology misuse” may be an underlying factor for Z’s “improper studying behaviours” through “decreased studying time”, “lack of focus” and “not completing deficiencies”. Likewise, Sahlström, Tanner and Valasmo (2019) concluded that smartphone usage in the class constrained high-school students’ participation.

Figure 3: Generational Glasses of through Negative Factors

The curriculum discordance was the second-highest common issue in the class motivation and study habit theme, and was slightly nearer to the Y side in the latter. Zers often assumed as “digital natives”; however, this is partly a myth since not all young people can afford to access to technology (“Policy Paper the Future of Work”, 2019). Also, using digital technologies do not guarantee to gain accurate skills for the future, according to research conducted with 5952 of Z youth (“Vodafone”, 2018). There were teacher expressions pointing this matter such as “finding the curriculum as useless/insufficient for life”, “the mismatch between targets and skills”, “restrictions about students’ field preferences”, “insufficient career counselling services”, “discordant curriculum policies”.

Another evident common factor was “moral degeneration” uncovered under the class motivation and class disrupting behaviour themes. Moral degeneration revealed with “loss of basic values such as patience, perseverance, honesty”, “grade surpassing all the values”, “limitless freedom idea of the students”, “students demanding higher but undeserved grades”, “tendency for cheating” codes. Gentina, Tang & Dancoine (2018) found a positive relationship between nomophobia and icheating (cheating with iPhone) related to moral degeneration and technology misuse coexistence. Correspondingly, in some Californian schools, cheating was decreased when students locked their phones in bags (“California-schooltesting-phone”, 2016). Indeed, it is not rational to isolate Zers from the technology, but developing awareness of moral and beneficial utilisation is vital. For example, Hou et al. (2019) conducted an intervention program by reducing students’ social media addiction, which resulted in improved mental health and academic efficiency. Implementing such orientations is a necessity through the techno-pedagogy path. In this sense, a reason for the joint statement of both teacher cohorts “depreciation in teachers’ value”, might be teachers’ insufficient adaptation to the new tasks or roles. Teachers’ traditional accustomed role of being the primary representative of the new knowledge might be shifting to a partnership with Zers’ with their faster adaptation to developing technologies as Avcı the former (2013-2016) National Education Minister of Turkey pointed below (“Nabi Avcı”, 2019):

“Interactive board undermined teacher’s authority when they couldn’t use those boards as good as children. Children started to inform teachers about the board operations. However, in our culture, teachers used to know the best of everything. When this relationship turned upside down, teacher authority was harmed.”

Beytekin and Doğan (2019) reported a teaching method-technology literacy mismatch between X academicians and Y students. The fast developing technologies may be more challenging for X teachers since they had to adapt it rather than growing with (Çakmak, 2013). Besides, being raised in a teacher-centred approach might be another obstacle to accept Zers’ guidance in class. Wider techno-gap may be a reason for X teachers’ more encountered criticisms towards Z students in this study. Teachers need to improve themselves constantly with the new skills
and move away from being the only holder of new information to comprehending each student as a partner of knowledge progress. This evolution may accelerate the informative role of teachers turn to a more compiler/synthesiser role.

X and Y teachers agreed that Today school and teacher were not seen as the only fundamental learning sources. Besides, 3 X teachers also evaluated this as a class-disrupting factor. Moore (2007) expressed that Z students might disinterest in a class taught for an hour with traditional methods and suggested group-work, technology-enriched interactive classes, study and learning partners’ concepts. Schwieger and Ladwig (2018) found that Zers are ambitious, self-starter, entrepreneurial, creative and willing to learn on their own. Therefore, only transferring information that students can acquire from any source may not meet Z’s expectations. Again, 8 X and 5 Y teachers mentioned that effortless access to information was a demotivating factor and also stated that students should gain knowledge by producing it.

Within the lens sides peculiar to X and Y, X teachers’ most noticeable factor was “future uncertainties” with 18 X teachers’ “insufficiencies of universities for occupational purposes” code. The number of annual unemployed university graduates was approximately 143,000 in 2000 and reached nearly nine times as 1,276,000 by August 2019 in Turkey (Turkish Statistical Institute, 2020). In the meantime, the university number increased from 76 to 207, while higher education student inclusion boosted from 1,587,038 to 7,940,133 (Higher Education Stats Turkey, 2020). This rapid growth of graduate numbers may have constrained the sufficiency of job opportunities, so X teachers may have evaluated the impact of belief for reaching a job in the future on students’ current class motivation as they coincided a term with a more adequate job supply.

One other factor belonging to X teachers was “emotional challenges” in class motivation theme with “increased romantic relationships”, “excessive interest for popular culture”, and in class-disrupting behaviours theme with “lack of emotion control” and “egocentrism” expressions. Several relevant studies showed a negative relationship between internet addiction and emotional intelligence in young people (Ko, Yen, Chen, Yeh, and Yen, 2009; Dong, Zhou, & Zhao, 2010; Khoshakhlagh and Faramarzi, 2012; Kant, 2018). Cakirpaloglu, Kvintová, Lemrová and Purmenská (2020), found that internet addiction causing depression higher for Z students than Yers. Another subtheme of X side was the “education policy” in class-disrupting behaviour theme, depending on 5 X teachers’ “policies making students superior”, “lack of sanction power towards indiscipline” critics.

The uncommon factors of Y teachers were “socioeconomic challenges” in class motivation, “environmental demotivation” in studying habit and “parent attitudes” in class-disrupting behaviour themes, which links Zers’ negative indicators with the surrounding factors. Some Y teachers draw attention to new methodic improvement needs with “unattractive teaching methods” statements in line with related studies (Altın and Kalelioğlu, 2015; Dursun, Kirbaş and Yüksel, 2015; Baz, 2016). However, X and Y teachers both noted the “curriculum discordancy”; they partly differ on the curriculum’s content and compatibility quality. X teachers mentioned content-based expressions like useless knowledge, excessive overloading class hours. However, Y teachers stressed the incompatibility between Z properties and the curriculum formation with “the insufficient class selection system”, “restrictions about students’ preferences”, “mandatory high school”. Wilson and Gerber (2008) studied Y students’ properties and proposed that Y students should be included in teaching design. Regarding Zers accustomed to making their preferences and decisions in the virtual world, these students might tend to be a routeing partner of the curriculum.

In the context of the negative indicators, all subthemes were common with varying sizes and closer to the X side, showing the higher emphasis of the X teachers (Figure 4).

As seen in Figure 4, “weak time management” and “reduction of learning quality” in class motivation theme were closely shared subthemes by X and Y teachers. X and Y teachers agreed that excessive occupation with social media and digital technologies causes weak time management. For the study habit theme, “unplanned” and “improper” studying
were two indicators stressed higher by X teachers. Similarly, Gökyer and Doğan (2016) found that Z high-school students were not adequately prepared for class, lack interest and attention. Simatupang, Murniarti and Peter (2020) searched the handicaps of online learning; time management problems and having difficulty in self-study emerged as handicaps. The class-disrupting behaviour theme included “attitudinal” and “behavioural” disorder subthemes more emphasized by X teachers. For attitudinal disorder, “not caring about class”, “lack of purpose and discipline”, “disrespect”, and for behavioural disorder: “making noise and weird movements”, “abnormal romantic relationships”, “melancholic and stray behaviours” were prominent disrupting items. In like manner, it was determined that social media played a significant role on flirting and courting of teenagers (Lenhart, Smith and Anderson, 2015; Sherrel and Lambie, 2016), and high-school students romantic relationships impact students’ grades and attention negatively (Hill, 2015). Social media addiction was also negatively associated with students’ mental health and academic performance (Hou, Xiong, Jiang, Song and Wang, 2019). In this sense, technologic misuse might have also brought artificial academic attitudes and behaviours such as “copy-paste learning tendency”, “learning only for grades”, “rote learning”.

**Conclusion**

This study was to determine the Gen Z high school students’ properties carried into class, class motivation, studying habit and class-disrupting behaviours through X and Y teachers’ perspectives came up with the following conclusions: (a) Zers’ studentship was mostly disapproval for both generations teachers, while Xers were more critical, (b) common significant negative factors were technology misuse, curriculum discordance, and moral degeneration, (c) the negative properties were in line with as mutually aggravating relations through “misuse of technology”, “information obesity”, “emotional challenges”, “learning quality reduction”, “weak time management”, “attitudinal” and “behavioural” disorder items, (d) “education technology advancement” was a “weak” positive, while “technology misuse” was the most major negative factor, (e) the curriculum features were discordant with Gen Z properties in terms of content for Xers, compatibility for Yers, (f) future uncertainties challenges emerged as a specific subtheme of X teachers, (g) X teachers linked the “moral degeneration”, “emotional challenges”, and “attitudinal/behavioural disorder” with Z’s properties, while Y teachers addressed it to the surrounding features like “negative parent attitude”, “incapabilities of teaching”, “environmental and the socioeconomic challenges”.

X teachers had more adverse views and were stepping forward compared to Yers in seeing students as the “Ztudents” with meaning of Z’s inner properties reflecting on their studentship. However, Yers drew attention to the disharmony between the Z cohort and their surrounding. Briefly saying, opposite directions appeared as “students should fit the conditions” and “conditions should fit the students”. Consequently, looking through both X and Y lenses would bring focus on adjusting the surrounder conditions while improving students’ insight visions, which might bridge gaps towards Zer from both sides.

**Limitations and Future Research**

This study had several limitations. Foremost, the research aimed to bring out the conditions, properties and its reflections on Zers studentship through at least five years of Z-class experienced Gen X and Y teachers’ views in Turkey. For this reason, caution is recommended concerning the generalizability and external validity of the results of this study. Different cultures may have certain effects on generational perspectives, and meta-studies combining Z studentship investigations through various cultures may yield wide comprehensions.
Zers class attitudes and behaviours were examined in four dimensions: class-related properties, class motivations, studying habits, class-disturbing behaviours and was directed to uncover the sets of the issues in a broad approach rather than focus on a single point. Hence, the study provided weighted lists of varying issue headers influencing class well-being, and also each title may be a focus for further research. Accordingly, new research problems can be produced like, “may teachers’ negative views towards new generation depend on biases or stereotypes?”, “can Zers’ in-class images change even if teachers are well instructed about the generations’ features?”, “why or when Z students prefer copy-paste learning?, and are there underlying generational issues in becoming grade oriented rather than deep learning?”, “can students’ adversely perceived properties be an illusion of adjustment failures, and how will curriculum perform if Zers attend to the development process?”.

Future studies may also intend to look from Zers glasses with multi-method approaches, including complete participant class observations, developing generation based scales and metaphors. School administrators’, parents’ views and Zers’ self-reports would be useful to see the young generation features through different perspectives. Besides, each Gen-sides’ perceptions can be compared through matches and mismatches. Moreover, this study showed that beneficial tips might emerge in relevant topics like revising the techno-pedagogy to overcome the generational obstacles, specifying assessment-evaluation techniques, developing qualified guides for Gen Z and partner cohorts. Beyond all, the generation theory is very likely to inspire ideas upon all teacher-student interaction inquiries.

Finally, this study and other generation-based education literature promise that further studies are needed and expected to contribute to the learning environment arrangements and partners’ interactions.

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