

Age-dependent fitness centre evaluation by resigned members

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Abstract:

In this study it is examined if and how evaluations of a fitness studio by dropouts are age-dependant. In other words: do various age groups evaluate fitness studios with different measures and expectations? Do different age-related needs and therefore different preferences regarding the studio conditions play a role here? It is also examined whether there are recurrent, prioritised reasons to drop-out in people's justifications and if so what these are, in a statistically significant way, more or less or not at all. A total of 225 people, who had terminated their contract with a fitness studio, were questioned. The survey was conducted as a telephone inquiry about their actual decision in a health-oriented fitness centre in east Cologne. The fitness facility was opened in 1994 and has a size of 1,100 square metres. At the time of the study, the gym had up to 1.151 memberships. Among them, 59% of the members were women and 41% were men. In general, the various aspects of the studio offer and its surroundings were largely rated as "good". The respondents particularly expressed their appreciation for the coaches (friendliness, helpfulness, competence), followed by opening hours, trial training and the first impression. The membership costs and individual aspects such as space, music and ventilation are evaluated more critically, if not badly. The studio's evaluations only slightly correlate with the age of the respondents. All correlations are weak up to very weak, and only four cases show significant, albeit weak, correlations.

Key words: Fitness-centre, evaluation, drop out, age-dependant

Introduction

High drop-out rates in sports programs are no exception. The long-term commitment of physically active people poses a problem. This also applies to fitness training in studios, as about half of the members end their training prematurely (Rampf, 1999).

The question concerning the reasons for dropping out has not been studied in Germany so far, which is why knowledge about it is incomplete. It is also problematic to determine average drop-out rates in German fitness studios because they are not recorded or published.

Oldrige (1982) analysed ten sports programs in the context of preventive measures, setting cancellation rates from 13% to 75%. The analysis of another 18 prevention programs showed drop-out rates from 3% to 87%.

In the Franklin study (1988), a quitting rate of 46% was found. The study concluded that dropouts are not an exception but rather common and that the first six months and end of the program are critical for the decision to quit. Furthermore, according to the results of the study, dropouts are more strongly affected in terms of health than the ones remaining. In addition to medical and psychological reasons for quitting, the factors "lifestyle and individual living conditions" are mentioned.

In the studies by Gettmann et al. (1983) and Song et al. (1983) similar factors were identified for quitting a program. As the most important reason to quit the factor "lack of time" appears almost exclusively. Furthermore, dropouts from a company sports program mentioned the factors "illness in the family, lack of interest in the sports program and inconvenience during the journey to the training" (time consuming, expensive, etc.). In the study by Oldrige (1979) 42% of the dropouts of a rehabilitation program for patients with coronary diseases mentioned "psychosocial reasons" (e.g. lack of interest, problems in the family). 25% of the dropouts mentioned "unavoidable reasons" (e.g. occupational conflicts, change of employment, change of residence), 22% gave medical reasons and 11% other reasons for quitting.

Brehm and Eberhardt (1995) questioned fitness studio members about their reasons for quitting training because they had not renewed their membership when their contract ended. The "lack of fun in the sporting activities" was mentioned as a priority factor for quitting the activity. In addition, "motivation problems" (e.g., laziness), "lack of time" (often due to heavy workload) and "financial reasons" (too expensive

membership fees) were mentioned as reasons for quitting. In an open question the members were asked for a specific reason for quitting. On this occasion criticism about the "studio atmosphere" (too impersonal) was mentioned, as well as "lack of social support" (e.g. no contact with other members, partner has quit the training, etc.) and "high membership costs" (also for additional services like childcare).

Pahmeier (1997) also investigated which factors influence the decision to quit a sports program and found out that among 65 respondents each gave an average of 3.6 reasons. The main problems that affected the quitting decision in this case were time management and factors of living and working conditions.

These studies show that quitting a sports program always depends on several factors. The features of quitting a sports activity may be personal and situational characteristics (Rampf, 1999).

It is often possible to identify reasons which ultimately lead to dropping out, but the participation behaviour is influenced by a complex factor structure.

Dishman (1982) several times remarks critically on the often unsystematic approach of many studies and describes them as atheoretical. He criticizes the limited data base and imputes it to the lack of uniform models that could simplify research.

Due to this lack of standardization of theories and examination methods, the comparability of the studies is severely restricted.

Material & methods

Survey methodology

A total of 225 people, who had terminated their contract with a fitness studio, were questioned. The survey was conducted as a telephone inquiry about their actual decision. The advantages of a telephone survey are the low cost per interview, the possibility of responding to queries and the high external validity. Disadvantages are the lower possible data volume caused by the difficulty to access the responder or lack of interest in a telephone survey, and the possible influence of the interviewer (Homburg & Krohmer, 2008).

Presentation of the study's fitness facilities

The study was conducted in a health-oriented fitness centre in east Cologne. The fitness facility was opened in 1994 and has a size of 1,100 square metres. At the time of the study, the gym had up to 1.151 memberships. Among them, 59% of the members were women and 41% were men. The gym faces strong competition. There are competitors who pursue a high price policy, one of which is a provider with a wellness area, but also providers with low price policy. The competitors' pricing is between €15 and €129 a month.

The study's fitness centre is located at the edge of a forest and about 250 metres from the nearest bus stop. It is also easy to reach by car or by bike or on foot. There is enough parking space available. The members are greeted and welcomed personally at check-in and check-out in the reception area. This creates a personal atmosphere.

The fitness studio offers group programs such as gymnastics for the spine and back, for the abdomen, legs and buttocks, body-styling, spinning courses, energy-step courses, Pilates, Yoga, Zumba, Progressive Muscle Relaxation according to Jacobson and rehabilitation sports courses. The group programs are held daily from Monday to Sunday. Furthermore, there is a wide range of strength and endurance equipment, vibration devices, electrical muscle stimulation (EMS) devices and a small space for free weights. There is a sauna and a solarium, and a small wellness space with shiatsu massage armchairs and water massage. The gym offers chargeable drinks.

The training and group program staff consists mainly of persons with sports science education. The fitness centre is open almost 360 days a year. The opening hours are Monday to Friday from 9 am to 11 pm and on weekends and on holidays from 10 am to 7 pm. Membership fees are graded according to the type of membership (course membership or equipment membership or both), duration of membership (12 or 24 months), and payment method (monthly or advance payment). The monthly fee ranges thus from 30 to 57 Euros. In addition there is a registration fee of 80 Euros.

The survey was conducted by telephone in July 2016. The respondents are persons who have terminated their membership in the period between 01.07.2015 and 30.06.2016. In the aforementioned period, 305 members departed. Of those 225 persons were found and questioned. 54 people could not be found, probably due to relocation or change of the telephone number. 26 persons did not wish to participate in the survey (Zarotis et al., 2017).

The persons were asked about different aspects of the training possibilities, equipment, support and environmental factors of the fitness studio. Each evaluation aspect was queried on a 5-point Likert scale. The scaling ranged from "excellent" (coded with the numerical value 1) to "inadequate" (coded with the numerical value 5). The scaling corresponds to a school note scaling without the grade 6, the intermediate stages are correspondingly with "good", "satisfactory" and "sufficient" verbally anchored.

In this way it is questionable in the strict metrological sense whether the distances between the scale stages can be regarded as equidistant and therefore whether the items have an interval scale level, or whether one would not have to assume an ordinal scale level here.

However, it can be shown that when using Likert scaled rating scales the use of parametric procedures can lead to statistically correct decisions even if the distances between the scale stages are not exactly equidistant.

Such scaling can thus be evaluated as being "sufficiently similar" in practice as an "interval scale", so that mean values and parametric procedures can be used accordingly.

In one case of a person interviewed, all information concerning the evaluation of the studio is missing. Apart from that, in most of the questionnaire items there were no response refusals, so that in 15 of the 19 questionnaires there are valid values even N = 224. In the case of four items, there was a further missing value, so that N = 223 valid values exist in these items.

The age of the interviewees was recorded in whole years; here, in one case, there was a missing value, so that in N = 224 cases the information about the age is in years.

Statistical approach

In the data analysis, the sample characteristics are initially described in terms of gender distribution, age and duration of membership in the studio.

With regard to the question of the relationship between the importance of quitting reasons and age, the respondents of the sample are presented in a descriptive manner in their distribution characteristics regarding studio evaluations in general and then by age groups.. Therefore respondents' age data were divided into the following four age categories:

- Age group 1: Respondents up to 25 years old
- Age group 2: Respondents between 26 and 40 years old
- Age group 3: Respondents between 41 and 55 years old
- Age group 4: Respondents from 56 years old and over

To ensure the inferential statistic of the relationship between studio evaluation and age, however, these age groups are not used, but in each case correlations of the age in years with the evaluations using the Pearson correlation coefficient, to use the full variance of the characteristic age in the correlation analysis.

These correlations are used to determine for each studio evaluation the extent to which the age determines the evaluation of different studio aspects in this sample, and whether such a relationship in the sample -if it is worth mentioning- is statistically significant. The conventional significance level of $p < .05$ is used here. If the values are below the significance threshold, it can be assumed that the correlation can be generalized, beyond the sample, to a whole population and does not merely represent a random effect of this specific sample.

Results

Sample description

The sample consists of almost 3/4 of female respondents and 1/4 of male respondents. The age range is between 16 and 74 years with a respondents' mean age of 43.5 years and a distribution of 13.0 years. In the age categories mentioned, most respondents (42.9%) are in age category 3 and a further 31.3% is in age category 2. Very young respondents represent only 9% of the respondents and respondents over 55 years 17% of the respondents. Contract terminations were made on average after 4.4 years of membership, with a very large distribution (standard deviation) of 3.8.

Table 1: Sample distribution characteristic values

		Quantity	%	Mean	Median	SD	Quantity
Gender	female	164	72,9%				
	male	61	27,1%				
	total	225	100,0%				
Age				43,5	43,0	13,0	224
Membership duration (years)				4,4	3,0	3,8	225
Age category	up to 25 years	20	8,9%				
	26-40 years	70	31,3%				
	41-55 years	96	42,9%				
	> 55 years	38	17,0%				
	total	224	100,0%				

Descriptive statistics

Studio evaluations in general

The Table 2 shows the mean values, median and standard deviation of the 19 studio evaluations.

Table 2: Mean values, median and distribution of studio evaluations

	Mean value	Median	SD	Quantity	
Studio location	1,7	2,0	,7	224	
Parking facilities	2,0	2,0	,9	224	
First impression	1,5	1,0	,6	223	
Opening hours	1,4	1,0	,6	224	
Studio atmosphere		1,7	2,0	,7	224
Trial training		1,5	1,0	,6	224
Membership costs		2,5	2,0	,8	224
Strength training offer		1,9	2,0	,5	224
Endurance training offer		1,9	2,0	,5	223
Spaciousness		2,3	2,0	,7	224
Music		2,3	2,0	,6	224
Light		1,8	2,0	,6	223
Ventilation		2,2	2,0	,6	223
Locker rooms		2,1	2,0	,6	224
Sanitary facilities		2,0	2,0	,5	224
Gastronomy		2,0	2,0	,4	224
Trainer's friendliness		1,3	1,0	,5	224
Trainer's helpfulness		1,3	1,0	,5	224
Trainer's competence		1,3	1,0	,5	224

The Figure 1 shows the mean values and distributions (as T bars) as a diagram of vertical bars.

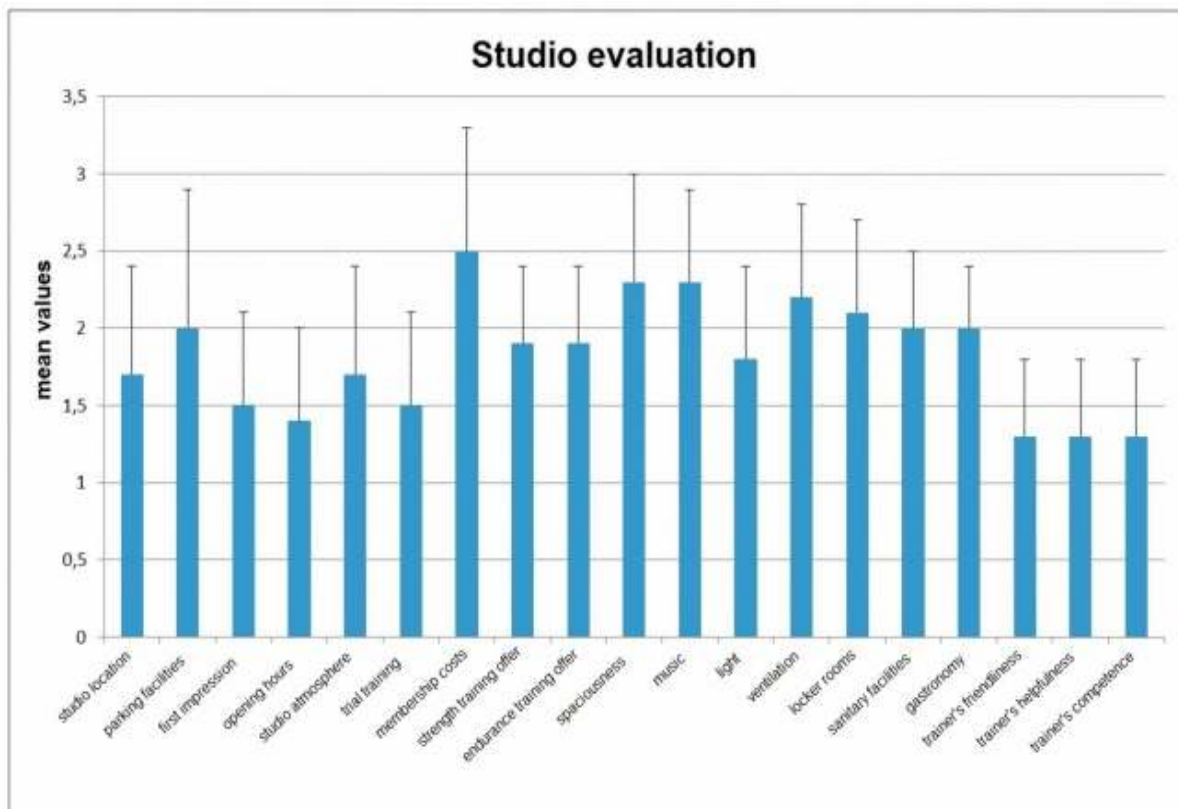


Fig. 1. Mean values and standard deviations of the studio evaluations

Studio evaluations according to age categories

The Table 3 shows the distribution characteristic values (Mean value, Median, Standard deviation) and the sample size differs according to the four age categories.

Table 3. Distribution characteristic values of studio evaluations according to age categories

		Mean value	Median	SD	Quantity
	Up to 25 Years	1,6	1,5	,7	20
Age category	26-40 Years	1,8	2,0	,7	69
	41-55 Years	1,7	2,0	,7	96
	> 55 Years	1,6	2,0	,5	38
Age category	Up to 25 Years	1,5	1,0	,6	20
	26-40 Years	2,0	2,0	,7	69
	41-55 Years	2,2	2,0	1,0	96
Age category	> 55 Years	2,1	2,0	,8	38
	up to 25 Years	1,5	1,0	,5	20
	26-40 Years	1,7	2,0	,8	69
Age category	41-55 Years	1,3	1,0	,5	96
	> 55 Years	1,3	1,0	,5	37
	up to 25 Years	1,4	1,0	,5	20
Age category	26-40 Years	1,6	2,0	,6	69
	41-55 Years	1,4	1,0	,6	96
	> 55 Years	1,2	1,0	,4	38
Age category	up to 25 Years	1,5	1,0	,5	20
	26-40 Years	1,8	2,0	,7	69
	41-55 Years	1,6	2,0	,7	96
Age category	> 55 Years	1,5	1,0	,7	38
	up to 25 Years	1,5	1,5	,5	20
	26-40 Years	1,6	2,0	,5	69
Age category	41-55 Years	1,5	1,0	,6	96
	> 55 Years	1,3	1,0	,6	38
	up to 25 Years	2,6	3,0	,9	20
Age category	26-40 Years	2,6	2,0	,8	69
	41-55 Years	2,4	2,0	,8	96
	> 55 Years	2,4	2,0	,7	38
Age category	up to 25 Years	1,7	2,0	,5	20
	26-40 Years	2,0	2,0	,5	69
	41-55 Years	1,9	2,0	,5	96
Age category	> 55 Years	1,8	2,0	,4	38
	up to 25 Years	1,7	2,0	,5	20
	26-40 Years	1,8	2,0	,5	69
Age category	41-55 Years	2,0	2,0	,6	96
	> 55 Years	1,8	2,0	,4	37
	up to 25 Years	2,2	2,0	,5	20
Age category	26-40 Years	2,2	2,0	,7	69
	41-55 Years	2,4	2,0	,8	96
	> 55 Years	2,2	2,0	,4	38
Age category	up to 25 Years	2,1	2,0	,4	20
	26-40 Years	2,4	2,0	,8	69
	41-55 Years	2,2	2,0	,5	96
Age category	> 55 Years	2,3	2,0	,5	38
	up to 25 Years	1,7	2,0	,4	20
	26-40 Years	1,7	2,0	,5	69
Age category	41-55 Years	1,9	2,0	,6	95
	> 55 Years	1,7	2,0	,7	38
	up to 25 Years	2,0	2,0	,3	20
Age category	26-40 Years	2,2	2,0	,6	69
	41-55 Years	2,3	2,0	,7	95
	> 55 Years	2,1	2,0	,5	38
Age category	up to 25 Years	1,9	2,0	,2	20
	26-40 Years	2,1	2,0	,6	69
	41-55 Years	2,1	2,0	,6	96
Age category	> 55 Years	2,2	2,0	,6	38
	up to 25 Years	1,9	2,0	,2	20
	26-40 Years	2,0	2,0	,5	69
Age category	41-55 Years	2,1	2,0	,6	96
	> 55 Years	2,0	2,0	,3	38
	up to 25 Years	1,9	2,0	,2	20
Age category	26-40 Years	2,0	2,0	,4	69
	41-55 Years	2,1	2,0	,5	96
	> 55 Years	1,9	2,0	,3	38
Age category	up to 25 Years	1,5	1,0	,5	20
	26-40 Years	1,4	1,0	,5	69

	41-55 Years		1,3	1,0	,5	96
	> 55 Years		1,2	1,0	,4	38
	up to 25 Years		1,4	1,0	,5	20
Age category	26-40 Years	Trainer's helpfulness	1,4	1,0	,5	69
	41-55 Years		1,3	1,0	,5	96
	> 55 Years		1,3	1,0	,5	38
	up to 25 Years		1,3	1,0	,5	20
Age category	26-40 Years	Trainer's competence	1,4	1,0	,5	69
	41-55 Years		1,3	1,0	,5	96
	> 55 Years		1,2	1,0	,4	38

In Figure 2, the mean values and distributions of the quitting reasons according to age groups are shown as grouped bar graphs.

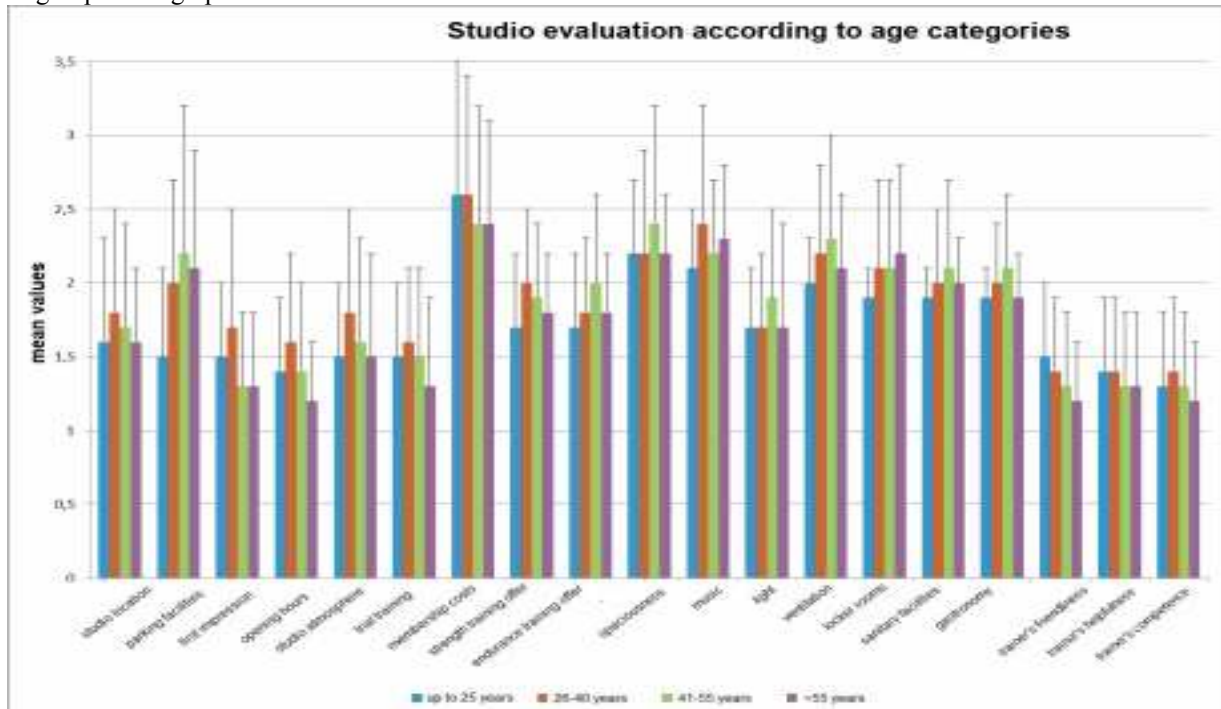


Figure 2: Studio evaluation according to age categories

Significance test of the correlations between studio evaluations and age

In Table 4, the correlation coefficients (product-moment correlations according to Pearson) of the studio evaluations are presented each time with the respective age:

Table 4: Correlations between studio evaluations and age

Correlations		Age
Studio location	Pearson-correlation	-,051
	Sig. (bilateral)	,452
	N	223
Parking facilities	Pearson-correlation	,149*
	Sig. (bilateral)	,026
	N	223
First impression	Pearson-correlation	-,138*
	Sig. (bilateral)	,040
	N	222
Opening hours	Pearson-correlation	-,200**
	Sig. (bilateral)	,003
	N	223
Studio atmosphere	Pearson-correlation	-,043
	Sig. (bilateral)	,526
	N	223
Trial training	Pearson-correlation	-,126
	Sig. (bilateral)	,059
	N	223
Membership costs	Pearson-correlation	-,139*
	Sig. (bilateral)	,038
	N	223
Strength training offer	Pearson-correlation	-,028
	Sig. (bilateral)	,676
	N	223

Endurance training offer	Pearson-correlation	,089
	Sig. (bilateral)	,185
	N	222
Spaciousness	Pearson-correlation	,036
	Sig. (bilateral)	,589
	N	223
Music	Pearson-correlation	-,026
	Sig. (bilateral)	,696
	N	223
Light	Pearson-correlation	,035
	Sig. (bilateral)	,601
	N	222
Ventilation	Pearson-correlation	,036
	Sig. (bilateral)	,589
	N	222
Locker rooms	Pearson-correlation	,087
	Sig. (bilateral)	,194
	N	223
Sanitary facilities	Pearson-correlation	,015
	Sig. (bilateral)	,825
	N	223
Gastronomy	Pearson-correlation	,020
	Sig. (bilateral)	,771
	N	223
Trainer's friendliness	Pearson-correlation	-,120
	Sig. (bilateral)	,075
	N	223
Trainer's helpfulness	Pearson-correlation	-,048
	Sig. (bilateral)	,473
	N	223
Trainer's competence	Pearson-correlation	-,075
	Sig. (bilateral)	,267
	N	223

*. correlation is significant by level 0,05 (bilateral).

**. correlation is significant by level 0,01 (bilateral).

Discussion

In general, the mean values of the evaluations vary between 1.3 and 2.5, i.e. all are consistently in the positive evaluation range of the scale. Most items are a little below or slightly above the value of 2, which is "good". Clearly, the best scores are found in the last three items, in which the studio trainers are evaluated. Also the items opening hours, trial training and first impression are in the mean value closer to the evaluation level "very good" than at the evaluation level "good." The - relatively speaking - worst ratings appear at the features of membership costs, spaciousness, music and ventilation. The differentiation by age groups shows in most evaluation categories only slight differences between the age groups of a few tenths of a scale in the mean values. More than half a scale difference in the mean values can only be found in the item parking facilities with a significantly better rating in the youngest age category. Within the small differences between the age groups, there are inconsistent trends across all age groups. For most items, a kind of "reversed u-shaped" relationship between age and evaluation is descriptive in the form that the oldest and the youngest respondents give the best ratings, while the middle age groups are slightly more critical. In the case of monotonous trends between age and evaluation the trend direction is that the ratings are better the older the respondents are.

On the whole, however, the differences between age categories - with the exception of parking facilities - are rather low.

In the correlations between studio evaluations and age there are only weak up to very weak trends. The most frequently occurring correlation amounts to .20. Accordingly, in 15 of the 19 correlations the outcome is also a - mostly obvious- not significant result; the slight correlations in the sample can therefore not be distinguished from chance. From the four significant correlations one is at a 1%-level and the other three are at a 5%-level distinguished from chance, but they are all in the region of weak correlations. In detail these correlations indicate:

- The evaluation of opening hours correlates with age at $r = -.200$ ($p = .003$; 4,0% explained variation), with increasing age, this aspect of the studio tends to receive better evaluation
- The evaluation of parking facilities correlates with age at $r = .149$ ($p = .026$; 2,2% explained variation), therefore with increasing age this aspect of the studio tends to receive worse evaluation
- The evaluation of membership costs correlates with age at $r = -.139$ ($p = .038$; 1,9% explained variation), thus with increasing age this aspect of the studio tends to receive better evaluation
- The evaluation of first impression correlates with age at $r = -.138$ ($p = .040$; 1,9% explained variation), thus with increasing age this aspect of the studio tends to receive better evaluation

Overall, the studio evaluation appears to be largely independent of the respondents' age. The few resilient correlations have rather marginal correlation intensity.

Conclusions

On the whole, the various aspects of the studio offer and its surroundings were largely rated as "good". The respondents particularly expressed their appreciation for the coaches (friendliness, helpfulness, competence), followed by opening hours, trial training and the first impression. The membership costs and individual aspects such as space, music and ventilation are evaluated more critically, if not really badly.

These evaluations of the studio are only slightly correlated with the age of the respondents. All correlations are weak up to very weak, and only four cases show significant, albeit weak, correlations.

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