Patterns of Participation in Organized Leisure Activities of Young People in Low and Middle Secondary Educational Tracks in Germany

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Abstract: Organized leisure activities are an important component of learning with a great potential for positive youth development. The available research has grown in the past decade but is still lacking differentiated analysis of specific activity determinants and longitudinal designs. Based on retrospectively collected quantitative data (n=1,547) at the end of low/middle secondary schools in Germany (9th/10th grades), this study explores patterns of organized activity participation over the school years using LCA (Latent Class Analysis). Four latent classes could be identified on the basis of eight manifest activity determinants: *None-Actives, Minor-Actives, Multiple-Actives*, and *Committed-Actives.* Sociodemographic indicators as well as social, cultural, and economic capital predict the assignment to these classes.

Keywords: organized leisure activities, non-formal education, patterns of activity participation, LCA, disadvantaged young people

Introduction

Adolescence is a turbulent phase of life in which a variety of changes and demands need to be coped with. In addition to formal education in school, participation in non-formal education in leisure time can play a significant role in helping youth cope with these challenges and, hence, for positive youth development (Farb & Matjasko, 2012). Important settings for non-formal education are organized leisure activities in which youth participate regularly over an extended period of time and which are led by an activity leader. Examples of such activities are playing sports in a club or learning to play a musical instrument (Mahoney & Stattin, 2000). Young people use organized leisure activities to pursue their interests and to experience and develop self-determination and responsibility. Organized leisure activities can be seen as an important component of learning, which ties in with young people's interests (Mahoney & Stattin, 2000; Metsäpelto & Pulkkinen, 2014). The potential of non-formal activities goes even beyond the teaching of formal skills. For example, extracurricular educational processes are important for the acquisition of vocational goal orientation and determining future pros-

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pects of young people (Denault, Ratelle, Duchesne, & Guay, 2018; Hemming & Reißig, 2015).

Based on the resource model of coping with life (Fend, Berger & Grob, 2009) as a heuristic frame, organized leisure activities are understood as a developmental context for positive youth development. Accordingly, organized leisure activities are on the one hand affected by social background indicators (e. g. forms of capital; Bourdieu, 1983) and on the other hand can have positive effects on personal and social resources as well as coping with developmental tasks (Hemming & Tillmann, 2023).

The state of research shows that primarily achievement-oriented, socioeconomically better-off young people participate in organized leisure activities, a trend that can be associated with social selectivity (Lareau, 2002; Perrson, Kerr, & Stattin, 2007). At the same time, extracurricular educational processes can help to reduce the link between social background and academic achievement (Mahoney & Stattin, 2000). Currently, numerous studies exist that address the relationship between social background and the use of organized leisure activities (e. g., Goshin, Dubrov, Kosaretsky, & Grigoryev, 2021; Meier, Hartmann, & Larson, 2018; O'Donnell, Pegg, & Barber, 2019). But the available research is not very differentiated and there is a lack of specific analyses examining activity usage of young people over a longer period of time in order to trace changes and development (Gniewosz, Zimmermann, Langmeyer-Tornier & Alt, 2018).

Also, generally, research on non-formal educational processes in organized leisure activities is still limited. Even though this small but diverse and interdisciplinary field of research has developed substantially over the past decades (e. g., Farb & Matjasko, 2012; Fischer, Steiner & Theis, 2019; Modecki, Blomfield Neira, & Barber, 2018; Suter & Györi, 2021), the focus lies mostly on cross-sectional analysis and leisure contexts from a more general perspective. As is known, it is hardly possible to adequately capture learning processes in non-formal settings from a social science perspective (Moskaliuk & Cress, 2016). According to Düx and Rauschenbach (2016), these can only be surveyed indirectly through their effects on young people. Therefore, it is important to capture specific determinants, which characterize the engagement of young people in organized leisure activities more precisely (Busseri & Rose-Krasnor, 2009). Besides the type of activities (e. g., sports or music), specific activity determinants like breadth, variety, and intensity are noticed in current studies however they have mostly been considered individually so far (e. g., breadth and intensity: Busseri & Rose-Krasnor, 2009; Denault & Poulin, 2009) and there are only few studies that comprehensively consider different determinants (e. g., Urban, Lewin-Bizan, & Lerner, 2010; Fischer et al., 2019; Sauerwein, Theis & Fischer, 2016). Yet, there are also studies that work with classification analyses (see chapter "Analysis") to identify and illustrate patterns in leisure time activities of young people. In these "classification" studies, however, only a few determinants of organized activities are included specifically. To our knowledge, there is no overview of existing studies that use classification analyses to identify activity patterns.

Accordingly, this paper follows three objectives: (1) to give an overview of studies that deal with "classification analyses" in the context of patterns of leisure time activities of young people, (2) to explore patterns of organized activity participation based on retrospective empirical data and specific determinants during school years, and (3) to describe those patterns in the context of social background characteristics to identify selective processes.

Determinants of Activity Participation

The variety of organized leisure activities is large; there are numerous forms and contents of offerings at different locations. In addition to the offered content, continuity and intensity of these activities vary as well as other characteristics – we understand them as "determinants". Whether and how organized leisure activities can have a positive developmental effect depends on them. However, existing studies usually consider only selected determinants (e. g., Agans et al., 2014; Denault & Poulin, 2016; Modecki et al., 2018). Furthermore, activity patterns (resulting from differences in activity determinants) can be described as characteristics that develop over time (Denault & Poulin, 2009). Thus, in order to identify activity patterns of young people, it is important to analyze different participation determinants over a longer period of time. Based on conceptual considerations on relevant characteristics determining positive effects of organized activity participation (Bohnert, Fredricks & Randall, 2010; Stecher & Maschke, 2013; Hemming & Tillmann, 2023) the following determinants were taken into account for this paper:

Mahoney et al. (2002) argue that the effects of organized activities are particularly influenced by the relationship with the activity leader. Organized activities open up the possibility of building relationships with adult caregivers outside of school and the home (Hansen, Larson, & Dworkin, 2003), which can be particularly important for disadvantaged youth. Accordingly, the activity leaders take on an important role: through them, young people experience complementary support and care. The relationship can be understood as a kind of mentoring (Mahoney et al., 2002; Mahoney & Stattin, 2000).

In addition, young people's experiences vary depending on the breadth of the activities, their intensity, and their duration (Fischer et al., 2019). More intensive and longer activity participation provides more opportunities for gaining knowledge and skills as well as for transactions with activity leaders and peers (Denault & Poulin, 2009). The breadth of different activities allows for more diverse experiences and relationships that can promote positive youth development (Agans et al., 2014; Denault & Poulin, 2009). On the other hand, too many activities can also lead to rather negative effects ("overscheduling"; Fredricks, 2012). Accordingly, there is a need for studies surveying duration, breadth, and intensity (Agans et al., 2014).

Positive, joyful engagement in the activities is another prerequisite for their developmental potential, accompanied by perceived self-determination of activity performance (Denault & Poulin, 2016; Mahoney & Cairns, 1997). When responsibility is assumed in the activity in the form of a specific role or function (e. g., children's coach, volunteering), this can have particularly positive developmental effects (Braun, 2014).

Finally, the quality of offers proves to be central for positive effects in terms of school performance and motivation, although quality is difficult to measure (Denault & Poulin, 2016; Fischer & Theis, 2014).

In the context of activity determinants, social disadvantages related to different forms of capital (Bourdieu, 1983) become evident – especially cultural capital, in form of educational, incorporated cultural practices or possessions (e. g., books, paintings) play a major role (Goshin et al., 2021; Hemming & Tillmann, 2023). Young people in low and middle educational tracks and from educationally deprived family backgrounds are less likely to participate in organized leisure activities than their better-off peers (Meier et al., 2018; O'Donnell

et al., 2019). Also, economic capital plays a role: Urban, Lewin-Bizan, and Lerner (2010) showed that young people with a lower socioeconomic status remain active less continuously, change their activities more frequently, and drop out more often. Last but not least, social capital in form of good family relationships can foster activity participation (Hemming & Tillmann, 2023). Accordingly, access of young people with less capital resources is limited (Meier et al., 2018). Nevertheless, socially disadvantaged young people can particularly benefit from experiences in extracurricular educational contexts because they have a greater need for support (Hille & Schupp, 2015; Mahoney & Stattin, 2000).

International studies on organized leisure activities originate from different national contexts; so transferability of findings must be questioned (Metsäpelto & Pulkkinen, 2014), in this case for Germany. Despite different contexts, the framework conditions of activities are still comparable. These are (mostly) voluntary, regular activities in a specific domain, carried out by an activity leader with a focus on developing a specific skill. This applies to leisure activities that take place mainly in school context (U.S.) and to those that take place primarily outside of school, such as in clubs (Germany). Different articles argue accordingly for a transferability (Mahoney & Stattin, 2000; Perrson et al., 2007).

Research of Studies on Leisure Activity Patterns

In pursuit of the first objective, an overview of recent German and international studies on "leisure activity patterns" using different kinds of classification analysis will be presented, although not in the form of a systematic review, as this would exceed the scope of the empirical nature of our paper. The conducted research used keywords like *leisure patterns*, *extracurricular activities*, and *organized leisure activities* to search databases such as *ResearchGate* and *Tandfonline.* One of the first identified studies to classify leisure time behavior of young people was the German study "What do children do in the afternoon?" (Deutsches Jugendinstitut, 1992), which presented a table showing the variety of leisure time behavior and places of residence. Further studies, albeit only a few, followed in the next two decades (2000 s, 2010 s). A total of 13 studies (published in 15 papers) were found, whereby only English- and German-language publications were considered. *Table 1* provides an overview of studies that have analyzed and classified patterns of leisure behavior and activity participation of children and youth based on empirical data. Regarding the national contexts, we found studies from Germany (5), the U.S. (3), Spain (1), and the Netherlands (1). Three studies (Blomfield & Barber, 2011; Feldman & Matjasko, 2007; Larson, Hansen, & Moneta, 2006) were not included in the table since they formed leisure types based on a conceptual basis and not based on empirical data; however, their types are similar to those mentioned in *Table 1.*

Table 1. *Overview of Recent Studies on Leisure Activity Patterns*

Study **Country** **Relevant References**	**Design & Methods for identifying activity patterns/classes**	**Description of patterns/classes**	**Analyzing strategy** **1) Explorative/hypotheses** **2) Understanding of leisure** **3) Determinants of activity** **4) Basis for classification**
AID:A Growing up in Germany today Germany Reference: Geier, 2015	– *n*=3,475; cross-sectional – Ages 12 – 17 – Representative sample – Factor analysis on leisure activities – Cluster analysis	1) Younger, domestic adolescents with restrained media use: low social class slightly overrepresented // 2) Active, family-oriented adolescents with low educational orientation: mainly lower social class // 3) Active, education-oriented all-rounders: Overrepresentation of higher social classes/high educational track // 4) Less active, media-oriented youth // 5) Older, consumer and party-oriented youth	1) Explorative 2) Broad understanding of leisure time 3) Focus on content of activity 4) Given set of activities
Medikus: Media, Culture and Sport Germany Reference: Grgic & Züchner, 2013	– *n*=4,931; cross-sectional; ages 9 – 24 – Based on AID:A study – Based on summarized activities (sports,music, performing & visual arts, media) – LCA	1) Uninvolved: more parents with low or middle cultural capital // 2) Highly active: high cultural capital // 3) Active in organized sports and in informal music and arts activities	1) Explorative 2) Broad understanding of leisure time 3) Focus on type of activity in general 4) Given set of activities
Shell Youth Study Germany References: Deutsche Shell, 2010/2015/2019	– *n*=2,558; cross-sectional, ages 12 – 25 – Representative sample	1) Sociable youth: partying, sports, family & friends, more older youths // 2) Media freaks: computer games, videos, internet, more masculine // 3)	1) Explorative 2) Broad understanding of leisure time 3) Focus on content of activity 4) Given set of activities

Study Country Relevant References	Design & Methods for identifying activity patterns/classes	Description of patterns/classes	Analyzing strategy 1) Explorative/hypotheses 2) Understanding of leisure 3) Determinants of activity 4) Basis for classification
	– Based on 8 dimensions of leisure characteristics (creative, family, sports...) – Factor & cluster analysis	Family-oriented youth: more female // 4) Creative leisure elite: book reading, arts, engaged in projects, more upper class	
StEG: Study on the development of all-day schools, different publications Germany References: *Arnoldt, Furthmüller, & Steiner, 2016; **Sauerwein, Theis, & Fischer, 2016	* *n*=1,901; longitudinal (retrospective) – Survey in last year (9th/10th grades) – Indicators: frequency and thematic/temporalgrouping of activities (calendar instrument) – Hierarchical cluster analysis ** *n*=5,278; longitudinal (2005/2007/2009) – Survey in 5th/7th grades – Grouped activities: academic, cultural,sports, media // LCA	*1) No expanded leisure profile // 2) Diverse and culturally influenced leisure profile // 3) Musically and socially oriented leisure profile // 4) Sports-centered leisure profile: more boys **1) Out-of-school: engaged in activities out of school // 2) Highly active // 3) Culturally oriented // 4) Jocks: sports, meeting friends, cultural activities, higher socioeconomic status // 5) Less active	1) Explorative 2) Organized activities 3) Focus on content and frequency of activity 4) Open questions on activities
The potential of leisure time Germany Reference: Harring, 2011	– *n*=520; longitudinal – Youth from 5th to 13th grades – School-based – Factor analysis of leisure activities – Hierarchical cluster analysis	1) Peer-oriented all-rounders: heterogeneous range of activities in connection with peer relationships // 2) Passive media freaks: consoles/computer games, rarely activities outside, more male // 3) Limited leisure users: family context, few activities, more female, high-percent-	1) Hypothesis-led 2) Broad understanding of leisure time 3) Focus on content of activity 4) Given set of activities

Study Country Relevant References	Design & Methods for identifying activity patterns/classes	Description of patterns/classes	Analyzing strategy 1) Explorative/hypotheses 2) Understanding of leisure 3) Determinants of activity 4) Basis for classification
		age migration background // 4) Educated, elite leisure-time creators: highly qualified institutions, more female, more without migration background // 5) Organized: highly organized/ structured activities	
4-H-Study of positive Youth Development USA Reference: Agans et al., 2014	– *n*=927; longitudinal; ages 12 – 17, waves 3 – 8 – Youth from 7th to 12th grades – Activity items recoded into dichotomousindex “depth of participation” – LCA	1) Consistent pattern of participation (a) consistent membership in high-participation class b) consistent membership in class with lower participation) // 2) Inconsistent participation patterns	1) Hypothesis-led 2) Organized activities 3) Focus of trajectories of participation across multiple activities 4) Given set of activities
MADICS: Maryland Adolescent Develop-ment in Context Study, different publications USA References: *Bartko & Eccles, 2003; **Peck, Roeser, Zarrett, & Eccles, 2008	* *n*=1,004; cross-sectional; ages 16 – 17 – Representative sample – 11 activities valued (sports, reading,homework…) – Cluster analysis ** *n*=1,060; longitudinal; waves 3 – 6 – Survey started in 9th grade – Cluster analysis	*1) Sports: sports, more time with friends // 2) Uninvolved: little time in leisure activities, more parents with low education level // 3) Volunteer // 4) High involved: active in many categories, more parents with high education level // 5) Work: paid employment, less active in other activities **1) Sports // 2) Sport-school // 3) Sport-volunteer // 4) Sport-work // 5) High-engaged // 6)	1) Explorative 2) Broad understanding of leisure time 3) Focus on content and frequency of activity 4) Given set of activities

Study Country Relevant References	Design & Methods for identifying activity patterns/classes	Description of patterns/classes	Analyzing strategy 1) Explorative/hypotheses 2) Understanding of leisure 3) Determinants of activity 4) Basis for classification
		School // 7) Volunteer // 8) Work // 9) Low engaged	
MSALT: Michigan Study of Adolescent Life Transitions USA References: Raymore, Barber, & Eccles, 2001	– *n*=954 – Survey in last high school year and threeyears later – Longitudinal (used waves 6 and 7) – Based on 12 leisure activities (sports,volunteer work, watching TV…) – Cluster analysis determined type of paths – between the 2 time points and thefrequencies for each path	1) Risky leisure pattern: doing things “just for kicks” // 2) Positive active leisure pattern: range of socially valued activities e. g. clubs // 3) Active formal & informal leisure pattern: more men, formal: volunteer work/ religion/ clubs/ organizations, informal: time with friends/ sports/reading/ family/ playing instrument, TV // 4) Diffuse leisure pattern: no activities with high scores (exception: young women in religious activities) // 5) Home-based leisure pattern: more female, time with family, reading, TV // 6) Jocks leisure pattern: more male, time with friends, sports, watching TV	1) Explorative 2) Broad understanding of leisure time 3) Focus on content and frequency of activity 4) Given set of activities
Young Adolescents’ Leisure Patterns, 2001 Netherlands Reference: Zeijl, Du Bois-Reymond, & Poel, 2001	– *n*=927; cross-sectional – Ages 10 – 15 – School-based – Based on 15 unorganized leisureactivities – Factor analysis	1) The street-computer area: time outside, sport, computer games // 2) The cultural area: cultural activities, more female, younger // 3) The cultural and youth-cultural area: mainly socially oriented youth cultural	1) Explorative 2) Unorganized activities 3) Focus on content of activity 4) Given set of activities

Study Country Relevant References	Design & Methods for identifying activity patterns/classes	Description of patterns/classes	Analyzing strategy 1) Explorative/hypotheses 2) Understanding of leisure 3) Determinants of activity 4) Basis for classification
		activities (going out, time with friends) and cultural activities (music making, writing) // 4) The youth-cultural and street-computer area: individually driven youth-cultural activities (watching TV, listening to music, hanging out), street & computer activities	
EJC: Catalan Young People's Survey Spain Reference: López-Sintas, Ghahraman, & Pérez Rubiales, 2017	– *n*=3,002; cross-sectional – Ages 15 – 34 – Community-based – Preprocessing of categorical indicatorswith multiple correspondence analysis – Cluster analysis	1) Social leisure pattern: few activities, more social activities // 2) Omnivorous leisure pattern: more activities than average, mainly cultural activities, more female // 3) Entertainment leisure pattern: more men // 4) Religious leisure pattern: lowest score in frequent leisure habitus, attendance at religious services	1) Hypothesis-led 2) Broad understanding of leisure time 3) Focus on content of activity 4) Given set of activities

As this overview shows, most studies that have performed a classification analysis either based it on a broader understanding of leisure time, which means that they do not only focus on organized activities but also on general leisure time without planned activities (e. g., Geier, 2015; Grgic & Züchner, 2013), or focused on the content of the activities (e. g., Deutsche Shell, 2019; Peck et al., 2008) and not specifically on activity determinants, an exception being Agans et al. (2014) and Sauerwein et al. (2016). In addition, longitudinal analyses are underrepresented. Most studies used factor or cluster analyses for analyzing patterns (e. g., Deutsche Shell, 2019; Geier, 2015; Raymore et al., 2001), while in a few cases LCA is applied (e. g., Agans et al., 2014; Sauerwein et at., 2016). The identified classes are nevertheless comparable. Even though most analyses are based on the content of the activities (e. g., Harring, 2011; López-Sintas et al., 2017), it becomes evident in the classes that the differences tend to be found between the intensity, variety, and continuity of leisure activities. For instance, in AID:A (Geier, 2015), leisure patterns include intensity and variety, even though the analysis was based on the content of the activities, with patterns like "Active, family-oriented adolescents with low educational orientation" or "Less active, media-oriented youth". Also, most studies reveal the effects of social origin in the assignment to the identified patterns (e. g., Bartko & Eccles, 2003; Deutsche Shell, 2019), which illustrates the importance of analyzing activity determinants explicitly.

Accordingly, our classification study works with retrospectively collected empirical data throughout the school years, which equals a longitudinal design. Furthermore, we do not focus on the content of the activities but on specific activity determinants. Since this is an explorative approach, we have applied Latent Class Analysis (LCA) as an explorative method for classification.

Research Questions and Hypotheses

The state of research shows that both specific activity determinants and social background indicators play an important role for organized leisure activity participation and should be considered in detail. Accordingly, the empirical part of the paper aims at exploring activity patterns based on determinants of participation in a German sample of young people in low and middle secondary educational tracks. To do so, breadth, continuity, intensity, enjoyment, relationship with the activity leader, self-determination, as well as competitive orientation and taking responsibility in the activities are considered as determinants (*Table 2*). The identified activity classes are subsequently related to predicting social background indicators: social, cultural, and economic capital (Bourdieu, 1983), as well as gender, migration background, and educational track (Hemming & Tillmann, 2023). The following research questions are answered:

1. Which activity participation patterns can be explored based on different manifest activity determinants?
2. How are these activity classes predicted by social background indicators?

Based on the state of research, we assume that (A) the individual determinants used to explore patterns of participation are correlated and interact with each other (Busseri & Rose-Krasnor,

2009; Denault & Poulin, 2009), which becomes clearly evident in the identification of individual patterns, and (B) social background indicators are correlated to activity participation (Meier et al., 2018) and, thus, will predict the identified patterns (Sauerwein et al., 2016; Fischer et al., 2019).

Methods

Design & Sample

For the study, n=1,547 students were surveyed with a standardized questionnaire in their final school year (9th/10th grade, 2019/20) in two federal states of Germany (Saxony, Saxony-Anhalt). The study was conducted in low and middle secondary schools (German *Hauptschule*/*Realschule*) and funded by the Deutsche Forschungsgemeinschaft (DFG, German Research Foundation; project number 396942483). The adolescents were aged 14–19 (M_{age}=15.84, SD=0.75), girls were slightly overrepresented (51.5 %), 6.2 % were foreign born. 90.2 % attended the middle secondary and 9.8 % the low secondary educational track. Only 22.8 % came from an academic household in which at least one parent had graduated university.

Measures

Determinants of Participation

Based on the method of Life History Calendar (LHC; Freedman et al., 1988, Furthmüller, 2016), participation in organized leisure activities during school years was measured with a specifically developed calendar instrument (Figure 1). The method of LHC was designed to facilitate and support the memory of past events by using the structure of a calendar table (Freedman et al., 1988).

Figure 1. *Applied Calendar Table (simplified example illustration, translated)*

Now it's about your leisure activities. Enter all the activities you have participated in regularly since 1st grade (you can enter up to 10).

	1. What did you do?	2. In which institution? Where?	3. In which grade did you do the activity? Tick off!										4. Who mainly chose the activity?		5. How many times a week did you do the activity? (on average)			6. How much did you enjoy the activity? Very much ☺ ☐ ☐ ☐ ☐ ☐ ☹ Not at all 1 2 3 4 5
			1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	Myself	Someone else Who?	1x	2x	More than 2x	
1	*Dancing*	*Sports-club*	✓	✓	✓									✓ *Dad*			✓	☐ ☐ ☐ ☒ ☐
2	*Basketball*	*Sports-club*			✓	✓								✓ *Dad*		✓		☒ ☐ ☐ ☐ ☐
3	*Art course*	*School*					✓	✓					✓		✓			☐ ☐ ☒ ☐ ☐
4	*Playing trumpet*	*Music school*					✓	✓	✓	✓	✓	✓	✓		✓			☐ ☒ ☐ ☐ ☐
5	…																	☐ ☐ ☐ ☐ ☐
6	…																	☐ ☐ ☐ ☐ ☐
…	…																	☐ ☐ ☐ ☐ ☐

Participants were asked to recall activities from their 1st to their final school year in 9th/10th grade. They entered all activities that they had regularly engaged in (at least once per week) over a longer period of time (at least one year), that were offered by an institution, and that were led by an activity leader. The number of activities is referred to as the determinant *Breadth.* For each activity, additional questions had to be answered, to capture detailed information on four activity-specific determinants (*Continuity, Self-determination, Intensity,* and *Enjoyment*). Three further determinants relate to global assessments across all activities (*Competitive orientation, Relationship with activity leader,* and *Taking responsibility*). Detailed information is shown in *Table* 2.

The data deriving from the calendar instrument were stored firstly in an extra spell, respectively episode data set. Information was then converted into a person data set by aggregating information in two different ways: (1) Aggregation of maximum values of the four activity specific determinants *Continuity, Self-determination, Intensity* and *Enjoyment*, (2) Aggregation of global determinants across all activities by using original values for *Breadth, Competitive orientation, Relationship with activity leader* and *Taking responsibility.* In the following analyses (see below), only aggregated information on the activity determinants were included.

Table 2. *Measures for determinants of activity participation*

Determinants	Description	Range
Activity specific determinants (included in LCA)		
Breadth	Number of different activities (Based on item: "What activities did you practice?")	1 – 10
Continuity	Max. Length (in school years) of participation in one activity (Based on item: "In what grade did you practice the activity?")	1 – 10
Intensity	Max. Intensity per week (Item: "How many times a week did you practice the activity?")	1: 1x 2: 1 – 2x 3: >2x
Self-determination	Choice of activity either by the young person or by another person (Item: "Who chose the activity?")	0: another person 1: self
Enjoyment	Max. Enjoyment of the activity (Item "How much did you enjoy doing the activity?")	1 – 5
Global determinants across all activities (included in LCA)		
Competitive orientation	Competitive orientation (Item: "Did you practice any of your activities with a competitive orientation? (e. g. competitive sport)")	0: no 1: yes
Relationship with activity leader	Sum index of 5 items on the relationship (Mahoney & Stattin, 2000; Example item: "If you have a problem, can you discuss it with your Activity Leader?")	0 – 5
Taking responsibility	Item: "Did you take a responsible position or hold a special function in one of your activities?"	0: no 1: yes
Additional determinants not included in LCA		
Location	Activity location in the school or outside the school	inside school only (0/1) outside school only (0/1) both locations (0/1)
Activity domains	Type of activity was coded as one of three domains (sports, music/culture, other), according to the open-ended activity statements in the questionnaire	1 domain (0/1) 2 domains (0/1) 3 domains (0/1)

Social Background Indicators

Cultural capital in the family is differentiated according to three dimensions, as these have different effects on leisure engagement (Tarazona & Tillmann, 2013). *Incorporated cultural capital* is captured by a sum-index of seven shared cultural activities with parents (e. g., "Your parents talk to you about politics" yes/no; range 0–7; Reißig, Tillmann, Steiner, & Reck-

siedler, 2018). *Institutionalized cultural capital* is operationalized via the academic educational background of the parents (yes/no; Reißig et al., 2018). *Objectified cultural capital* is captured via the item book ownership ("Approximately how many books are there in your home?"; low/high).

Social capital is captured by an index of the quality of relationships with parents (e.g., "I get along very well with my mother"; 5 items, range 1–5 on a Likert Scale; Reißig et al., 2018).

Economic capital is captured by the highest parental ISEI (HISEI) (International Socio-Economic Index of Occupational Status; range 11–90; Ganzeboom, Graaf, & Treiman, 1992).

In addition, further indicators are included as control variables: gender (male/female), migration background (foreign-born/born in Germany), and educational track (low/middle secondary education). All social background indicators are included in the person data set.

Analysis

Statistical classification analysis (e. g. Latent Class Analysis (LCA), Cluster Analysis) identifies and assigns categories to a collection of data to allow for more accurate analysis. LCA is an exploratory statistical method for identifying unobserved or latent classes among respondents (Weller, Bowen, & Faubert, 2020). In the underlying equation, conditional probabilities of membership in different latent classes (given observed categorical indicators) are calculated for every respondent. The respondents are assigned to the latent class with the highest conditional probability. These probabilities are based on conditional probabilities of the observed indicator pattern, given different latent class memberships and latent class sizes (Rost, 2004).

Our LCA uses eight observed indicator variables to identify these subgroups. The indicator variables contain the above described aggregated values for activity participation (*Table 2*). For including them in the LCA, the metric indicators *Breadth, Continuity*, and *Relationship with activity leader* were recoded into three categories of similar size each containing about one third of respondents. These similar category sizes facilitate iterative latent class estimations. The indicator *Enjoyment* has a skewed distribution with 62.8 % of respondents in category 5. Thus, it was recoded into a dichotomous variable, differentiating between very high enjoyment and lower enjoyment. The other indicators were already suitable for including into LCA: *Intensity* (3 categories), *Competitive Orientation/Self-determination/ Taking responsibility* (dichotomous).

LCA assumes that observed answer patterns on indicating variables can be explained by different latent class memberships. Respondents of the same latent class should have similar answer patterns, while respondents of different classes should differ. Since LCA is an exploratory approach, the number of classes has to be determined by the researcher. We calculated ten models, which divided respondents into one to ten different latent classes. For each model, two fit indices were obtained: the Bayesian information criterion (BIC) and the Akaike information criterion (AIC). These information criteria contain the likelihoods and number of parameters and can be used to compare model fits of different complex models. Lower BIC and AIC values indicate better model fit, see *Table 3* (Fahrmeir, Kneib, & Stefan, 2007).

Table 3. *Comparison of Fit Indices for one-to-ten-class Solutions*

Number of latent classes	BIC	AIC
1	7160.413	7134.275
2	**6918.498**	6860.994
3	6939.444	**6850.574**
4	6975.064	6854.828
5	6992.003	6856.084
6	7027.534	6865.476
7	7061.108	6872.913
8	7041.041	6863.300
9	7069.368	6870.717
10	7091.041	6876.707

Notes: Lowest BIC and AIC values are in bold type.

The models with two and three latent classes showed the best-fit indices. We compared both solutions and decided on the more differentiated 3-class solution. This way, the low to moderately active young people could be separated better. We added a fourth class of *Non-Actives* afterward, consisting of respondents that showed no activity participation at all (Table 4). These cases were excluded from the LCA because they had zero activities in *Breadth* and subsequent missing values in all indicator variables describing these activities.

To examine further discovered differences between classes in complementary activity determinants and social background indicators (capital indicators and sociodemographic variables), analyses of variance (ANOVA) were computed.

In addition, the predictive value of social background indicators for membership in different classes was examined using multinomial logistic regression models. Therefore, metric indicators (e. g., *Relationship with parents*) were standardized and categorical indicators (e. g., *Book ownership*) were dichotomized.

Results

Description of Activity Classes

Table 4 gives an overview of the four identified classes including *Non-Actives*, *Minor-Actives*, *Multiple-Actives*, and *Committed-Actives,* and the respective values in the eight manifest indicators.

Table 4. *Manifest Determinants of Activity Participation by Identified Latent Class (n=1,547)*

Determinants		Non-Actives (11.0%)	Minor-Actives (25.3%)	Multiple-Actives (38.8%)	Committed-Actives (25.0%)
Breadth	1	n/a	51.2%	20.8%	20.0%
(number of activities)	2		33.0%	27.5%	23.8%
	3 or more		15.9%	51.7%	56.2%
Continuity	1 – 3	n/a	56.2%	33.3%	9.8%
(max. years)	4 – 6		24.6%	36.2%	33.0%
	7 – 10		19.2%	30.5%	57.3%
Intensity	1x	n/a	30.1%	18.3%	7.7%
(max. weekly frequency)	1 – 2x		48.9%	49.0%	33.5%
	>2x		21.0%	32.7%	58.8%
Competitive orientation	No	n/a	82.1%	85.7%	36.5%
	Yes		17.9%	14.3%	63.5%
Enjoyment	little or medium (1 – 4)	n/a	93.8%	0.0%	5.9%
	very high (5)		6.2%	100%	94.1%
Relationship with activity leader	little/medium (0 – 3)	n/a	74.0%	63.5%	20.5%
	high/very high (4 – 5)		26.0%	36.5%	79.5%
Self-determination	another person	n/a	17.3%	0.0%	2.1%
	Self		82.3%	100%	97.9%
Taking responsibility	No	n/a	98.0%	100%	25.7%
	Yes		2.1%	0.0%	74.4%

Notes: n/a=not applicable, gray=highest value/s per row; original range of determinants (Table 2) in brackets

Subsequently, results of the ANOVA are presented in *Table 5.* Therefore, capital indicators, sociodemographic variables, and additional determinants that characterize leisure-time engagement more precisely (activity locations/ activity domains; *Table 2*) are analyzed regarding differences in mean scores between the latent classes.

Table 5. *ANOVA: Forms of Capital, Sociodemographic Indicators, Additional Determinants by Identified Latent Classes (n=1,547)*

Indicators		**Non-Actives (0)** M	**Minor-Actives (1)** M	**Multiple-Actives (2)** M	**Committed-Actives (3)** M	**F/p**	**Post-hoc Scheffé** (significant group differences[1])
Additional activity determinants							
Location	school (0/1)	n/a	0.18	0.07	0.01	37.532***	12/13/23
	out of school (0/1)		0.25	0.16	0.09	24.877***	12/13/23
	both (0/1)		0.56	0.77	0.89	223.395***	12/13/23
Domains (sports, music/ culture, others)	one (0/1)	n/a	0.75	0.51	0.53	107.317***	12/13/23
	two (0/1)		0.23	0.41	0.35	26.045***	12/13
	three (0/1)		0.03	0.09	0.12	14.759***	12/13
Sociodemographic indicators							
Gender	0(male)/ 1(female)	0.44	0.46	0.61	0.46	11.730***	02/12/23
Foreign born	0(no)/ 1(yes)	0.13	0.04	0.08	0.04	7.157***	01/03
Educational track	0(low)/ 1(middle)	0.79	0.90	0.92	0.92	10.134***	01/02/03
Cultural capital							
Incorporated c.c. (shared cultural activities with parents)	0 – 7	3.58	4.34	4.54	4.84	28.451***	01/02/03/ 13/23
Institutionalized c.c. (academic background of parents)	0 (no)/ 1 (yes)	0.17	0.22	0.21	0.28	3.240***	03^{+}/23^{+}
Objectified c.c. (number of books)	1 – 5	1.98	2.24	2.44	2.59	14.589***	01^{+}/02/03/ 12^{+}/13
Economic capital							
HISEI	11 – 90	42.94	48.75	46.97	51.37	8.350***	01/03/23

Indicators		Non-Actives (0) M	Minor-Actives (1) M	Multiple-Actives (2) M	Committed-Actives (3) M	F/p	Post-hoc Scheffé (significant group differences[1])
Social capital							
Relationship with parents	1 – 5	3.58	4.34	4.54	4.84	28.451***	01/02/03/13/23

Notes: n/a=not applicable, gray=highest value/s per row, [1] number of groups with significant (p<.05) differences are named (e.g., '12' means significant difference between group 1 and group 2), *** p<.001, [+] p<.10

In the following section of the paper, the classes are described based on the information in *Table 4* and *Table 5*.

Non-Actives

This class includes young people who did not engage in any organized leisure activity during their school years and represents 11.0 % of the sample. They are more often male, from a low educational track, and foreign-born. They have lower levels of all forms of capital, with the differences being most evident in cultural capital: fewer shared cultural activities with parents, less academic background, and their families own fewer books. Likewise, they have less economic and social capital to fall back on than their peers in the active classes.

Minor-Actives

In this class, youth tend to avail themselves of few activities in their school years. They have less continuity and intensity in any activity and feel less enjoyment. Their activities are hardly competitive-oriented and the relationship with the activity leader is described as average. They rarely take on any responsible roles, and their degree of self-determination is lower than in the other groups. *Minor-Actives* often use only one activity location, mainly what the school offers. They are mostly active in only one domain, usually sports. *Minor-Actives* are more likely not to be foreign-born and have lower values in all forms of capital than other active groups, particularly having less access to cultural capital in the form of shared cultural activities with parents and fewer books in the family.

Multiple-Actives

Young people in this class are active on many levels. They hold a middle position between the *Minor-* and *Committed-Actives* regarding breadth, continuity, intensity, and the relationship with the activity leader, but, with a lower competitive orientation than the *Minor-Actives* and no responsible tasks. Multiple-Actives have chosen at least one of their activities themselves and feel maximum enjoyment about at least one activity. They tend to be active in more than one domain and use both school and out-of-school activities. They are mainly young women in the middle educational track. They have higher levels of most forms of capital than *Non-*

Actives and *Minor-Actives*, but still lower than *Committed-Actives*, in particular less institutionalized cultural, economic, and social capital.

Committed-Actives

The majority of this class practiced three or more activities continuously and intensively in their school years. This high breadth, continuity, and intensity is accompanied by high competitive orientation and a strong commitment to assuming responsibility. Young people in this class describe the best relationship to their activity leaders while also perceiving high enjoyment and self-determination. In addition, a wide variety of activity locations and domains are used. *Committed-Actives* are mainly in the middle educational track and not foreign-born. They have the highest capital background and, thus, good access to supportive cultural, social, and economic forms of capital in their families.

Social Background Predictors of Latent Classes

After identifying and describing the patterns, the predictive value of social background indicators for assignment to different latent classes is further analyzed using multinomial logistic regression models with *Non-Actives* as the base category (*Table 6*).

Table 6. *Multinomial Logistic Regression of Social Background Indicators on Latent Class Membership (Non-Actives as base category)*

	Minor-Actives	Multiple-Actives	Committed-Actives
Sociodemographic indicators			
Gender (male)	0.872	0.433***	0.789
	(0.189)	(0.090)	(0.173)
Foreign-born (yes)	0.274**	0.645	0.317*
	(0.128)	(0.244)	(0.145)
Educational track (middle)	1.346	1.754	1.419
	(0.429)	(0.546)	(0.476)
Cultural capital (c.c.)			
Incorporated c.c. (shared cultural activities with parents; standardized)	1.476***	1.572***	1.877***
	(0.174)	(0.177)	(0.228)
Institutionalized c.c. (at least one parent with academic background)	0.829	0.812	0.973
	(0.248)	(0.234)	(0.290)
Objectified c.c. (more than 100 books in the household)	0.957	1.301	1.197
	(0.231)	(0.299)	(0.289)
Social capital			
Relationship with parents (standardized)	1.047	1.307**	1.306*
	(0.108)	(0.132)	(0.144)
Economic capital			

	Minor-Actives	Multiple-Actives	Committed-Actives
HISEI (standardized)	1.281*	1.058	1.269
	(0.155)	(0.122)	(0.155)
Constant	2.784**	4.165***	2.380*
	(0.961)	(1.399)	(0.858)
n	1,358		
Pseudo R^2	0.041		
Hosmer–Lemeshow test	26.745		

Notes: Exponentiated relative-risk ratios; standard errors in parentheses; *p<.05, **p<.01, ***p<.001

The multinominal model confirmed that all forms of capital as well as gender and migration background significantly predict latent class membership. Only the educational track does not contribute independently to the explanation when controlling for the other indicators. The direction of the relationships is consistent with the differences in the latent classes described above. Young women are more likely to be *Multiple-Actives*, and foreign-born students are less likely to be *Minor-Actives* or *Committed-Actives* than *Non-Actives.* Incorporated cultural capital is the strongest predictor of participation: young people are more likely members of all three active classes instead of the base class *Non-Actives*, the more they share cultural activities with their parents. Social capital in the family is positively associated with membership in *Multiple-Actives* and *Committed-Actives:* The better the relationship with their parents, the more active and committed do young people participate in activities. In addition, economic capital is important: The higher the HISEI of both parents, the more likely students are to be assigned to *Minor-Actives* than *Non-Actives.*

The explained variance is acceptable, because Pseudo R^2 in logistic regressions generally takes lower values than R^2 in linear models (Smith & McKenna, 2013). The Hosmer-Lemeshow test is nonsignificant, indicating a good model fit (Fagerland & Hosmer, 2012).

Discussion

The present study offers an important contribution to the analysis of non-formal educational processes in adolescence. On the one hand, the study provides a well-founded overview of research on studies identifying activity patterns in the leisure behavior of young people. On the other hand, activity patterns are empirically explored on the basis of different activity determinants. In this way, the study meets the demand for including specific activity characteristics instead of merely the type of activity in the analyses (Busseri & Rose-Krasnor, 2009). Also, the quasi-longitudinal design addresses the desideratum for longitudinal research on organized activity participation in adolescence (Gniewosz et al., 2018). The extent of social disparities in non-formal education processes is revealed by including social background variables.

The results demonstrate that determinants play an important role in characterizing activity participation and are strongly correlated with each other. Here, similar to previous studies,

four activity patterns can be identified, which differ according to *Breadth, Continuity*, and *Intensity* (Agans et al., 2014; Peck et al., 2008). Particularly, longitudinal studies on the breadth of participation show that adolescents who participate in several cultural or athletic activities have positive developments in their prosocial and cooperative behavior (Sauerwein et al., 2016). However, developmental effects can also be limited or even show negative effects (overscheduling-hypothesis; Fredricks, 2012), especially regarding school related outcomes. Thus, in future research, the identified activity patterns need to be analyzed regarding their effects on developmental outcomes to evaluate their positive potential.

Among other determinants than *Breadth, Continuity*, and *Intensity*, the *Relationship to the activity leader, Enjoyment, Self-determination, and Taking responsibility* emerge as equally or even more important determinants for the differentiation, which to our knowledge have not been considered in other studies so far in classification analysis. Assumption (A) can be confirmed, that the determinants are correlated and interact with each other. However, the four patterns differ not only in the eight manifest variables, but moreover in terms of activity location, and used activity domains (another indicator of breadth), illustrating the interdependence of determinants once more. Thus, the determinants influence and reinforce each other and therewith condition activity participation over the school years. It can be assumed that poor experiences with activities at primary school age might well lead to lower engagement in further schooling. Accordingly, Hemming and Tillmann (2023) showed that activity participation in secondary school is strongly determined by participation in primary school.

The results also confirm assumption (B) that social background indicators predict the assignment to latent activity classes. As expected, the identified latent classes differ depending on the sociodemographic variables gender, migration background, and educational track, as well as social, cultural, and economic capital (Harring, 2011). Here, as in other studies, the strong effect of incorporated cultural capital becomes evident (Tarazona & Tillmann, 2013). Shared cultural activities in the family are the most important prerequisite for diverse and engaged activity participation of young people. Thus, disadvantaged young people lose out twice: they lack cultural stimulation at home, and they experience less stimulation in their free time because they engage less in organized activities. The results show that social selectivity exists not only in formal, but also in non-formal education (Urban et al., 2010). This reinforces existing inequalities and does not sufficiently utilize the opportunities and potentials of equalizing effects of non-formal education.

Limitations and future perspectives: (1) The study focuses on low/middle education. Since leisure activities correlate strongly with the attended educational track (Geier, 2015; Urban et al., 2010), this results in a limited perspective. The same applies to the limited variance in the social background indicators. However, this allows for analyzing the influences independently of the selective effects of high educational attainment. (2) The study relates to Germany only. Further studies should examine the transferability of the results to other national contexts. (3) Moreover, within Germany itself, only two federal states were considered. It should be examined further whether there are regional characteristics in organized activity participation and in its relationship to the social origin that go beyond known differences between urban and rural regions. (4) We used a quasi-longitudinal design and collected information on organized leisure engagement retrospectively. Retrospective collections of activities are distorted by memory gaps. Especially subjective evaluations like the relationship with the activity leader can be distorted by present evaluations and are not time

constant, but change over school years (Hascher & Hagenauer, 2011). However, by using the method of LHC, recall errors were reduced and reliability of data increased (Freedman et al., 1988). Nevertheless, future studies should be designed longitudinally, especially in the analyses, even if this entails higher research costs. (5) Quality of activities is an important indicator not only for positive developmental outcomes but also regarding selective processes of participation. Due to difficulties in operationalization, it could not be included in this paper but needs to be taken into account in further studies.

References

Agans, J. P., Champine, R. B., DeSouza, L. M., Mueller, M. K., Johnson, S. K., & Lerner, R. M. (2014). Activity involvement as an ecological asset: profiles of participation and youth outcomes. *Journal of Youth and Adolescence*, *43*(6), 919–932.

Arnoldt, B., Furthmüller, P., & Steiner, C. (2016). Zur Relevanz von Ganztagsteilnahme bei der Bewältigung kritischer Passagen am Ende der Schullaufbahn [On the relevance of full-day participation in coping with critical passages at the end of the school career]. *Zeitschrift Für Pädagogik*, *62*(6), 812–829.

Bartko, W. T., & Eccles, J. S. (2003). Adolescent Participation in Structured and Unstructured Activities. *Journal of Youth and Adolescence*, *32*(4), 233–241.

Blomfield, C. J., & Barber, B. L. (2011). Developmental experiences during extracurricular activities and Australian adolescents' self-concept. *Journal of Youth and Adolescence*, *40*, 582–594.

Bohnert, A., Fredricks, J. & Randall, E. (2010). Capturing Unique Dimensions of Youth Organized Activity Involvement. *Review of Educational Research*, *80*(4), 576–610.

Bourdieu, P. (1983). Ökonomisches Kapital, kulturelles Kapital, soziales Kapital [Economic capital, cultural capital, social capital]. In R. Kreckel (Ed.), *Soziale Ungleichheiten* (pp. 183–198). Göttingen: Schwartz.

Braun, S. (2014). Voluntary Associations and Social Capital. In M. Freise & T. Hallmann (Eds.), *Modernizing Democracy: Associations and Associating in the 21st Century* (pp. 59–70). NY: Springer.

Busseri, M. A., & Rose-Krasnor, L. (2009). Breadth and intensity: Salient, separable, and developmentally significant dimensions of structured youth activity involvement. *British Journal of Developmental Psychology*, *27*, 907–933.

Denault, A.-S. & Poulin, F. (2009). Intensity and breadth of participation in organized activities during the adolescent years. *Journal of Youth and Adolescence*, *38*, 1199–1213.

Denault, A.-S. & Poulin, F. (2016). What adolescents experience in organized activities: Profiles of individual and social experiences. *Journal of Applied Developmental Psychology*, *42*, 40–48.

Denault, A.-S., Ratelle, C. F., Duchesne, S., & Guay, F. (2018). Extracurricular activities and career indecision. *Journal of Vocational Behavior*, *110*, 43–53.

Deutsche Shell (Ed.) (2010). *16. Shell Jugendstudie. Jugend 2010* [16th Shell Youth Study. Youth 2010]. F.a.M.: Fischer.

Deutsche Shell (Ed.) (2015). *17. Shell Jugendstudie. Jugend 2015* [17th Shell Youth Study: Youth 2015]. F.a.M.: Fischer.

Deutsche Shell (Ed.) (2019). *18. Shell Jugendstudie. Jugend 2019* [18th Shell Youth Study. Youth 2019]. F.a.M.: Fischer.

Deutsches Jugendinstitut (Ed.) (1992). *Was tun Kinder am Nachmittag?* [What do children do in the afternoon?]. München: DJI.

Düx, W., & Rauschenbach, T. (2016). Informelles Lernen im Jugendalter [Informal learning in adolescence]. In M. Rohs (Ed.), *Handbuch Informelles Lernen* (pp. 261–283). Wiesbaden: VS.

Fagerland, M. W., & Hosmer, D. W. (2012). A Generalized Hosmer–Lemeshow Goodness-of-Fit Test for Multinomial Logistic Regression Models. *The Stata Journal*, *12*(3), 447–453.

Fahrmeir, L., Kneib, T., & Stefan, L. (2007). *Regression.* [Regression]. Berlin: Springer.

Farb, A. F., & Matjasko, J. L. (2012). Recent advances in research on school-based extracurricular activities and adolescent development. *Developmental Review*, *32*, 1–48.

Feldman, A. F., & Matjasko, J. L. (2007). Profiles and portfolios of adolescent school-based extracurricular activity participation. *Journal of Adolescence*, *30*(2), 313–332.

Fend, H., Berger, F. & Grob, U. (2009). 1527 "Lebensgeschichten" von der späten Kindheit ins Erwachsenenalter – Konzept und Durchführung der LifE-Studie [1527 "Life Stories" from Late Childhood into Adulthood – Concept and Implementation of the LifE Study]. In H. Fend, F. Berger & U. Grob (Hrsg.), *Lebensverläufe, Lebensbewältigung, Lebensglück. Ergebnisse der LifE-Studie* (S. 9–34). Wiesbaden: VS.

Fischer, N., Steiner, C. & Theis, D. (2019). How many, how long, how diverse? Measuring and analysing participation in extracurricular activities. In S. H. Bae, J. L. Mahoney, S. Maschke & L. Stecher (Hrsg.), *International Developments in Research on Extended Education* (S. 87–113). Opladen: Barbara Budrich.

Fischer, N., & Theis, D. (2014). Extracurricular participation and the development of school attachment and learning goal orientation. *Journal of Developmental Psychology*, *50*(17), 88–93.

Freedman, D., Thornton, A., Camburn, D., Alwin, D., & Young-DeMarco, L. (1988). The Life History Calendar. *Sociological Methodology*, *18*, 37.

Fredricks, J. A. (2012). Extracurricular participation and academic outcomes: testing the over-scheduling hypothesis. *Journal of Youth and Adolescence*, *41*(3), 295–306.

Furthmüller, P. (2016). Retrospective measurement of students' extracurricular activities with a self-administered calendar instrument. *Methods, Data, Analyses*, *10*(1), 73–96.

Ganzeboom, H., Graaf, P. M. de, & Treiman, D. J. (1992). A Standard International Socio-Economic Index of Occupational Status. *Social Science Research*, *21*, 1–56.

Geier, B. (2015). Zwischen Familie, Bildung und Peers: Die Bedeutung von Alter und sozialer Herkunft für Freizeitaktivitäten Jugendlicher [Between Family, Education, and Peers: The Importance of Age and Social Origin for Adolescents' Leisure Activities]. In S. Walper, W. Bien, & T. Rauschenbach (Eds.). *Aufwachsen in Deutschland heute: Erste Befunde aus dem DJI Survey AID:A 2015* (pp. 41–45). München: DJI.

Gniewosz, G., Zimmermann, J., Langmeyer-Tornier, A. & Alt, C. (2018). Frei(e)zeit zwischen Kindheit und Jugend [Leisure Time between Childhood and Adolescence]. *Zeitschrift für Soziologie der Erziehung und Sozialisation*, *38*(03), 302–319.

Goshin, M., Dubrov, D., Kosaretsky, S., & Grigoryev, D. (2021). The Strategies of Parental Involvement in Adolescents' Education and Extracurricular Activities. *Journal of Youth and Adolescence*, *50*(5), 906–920.

Grgic, M., & Züchner, I. (Eds.) (2013). *Medien, Kultur und Sport. Die MediKuS-Studie* [Media, culture and sports. The MediKuS Study]. Weinheim: Beltz.

Hansen, D. M., Larson, R. W., & Dworkin, J. B. (2003). What adolescents learn in organized youth activities. *Journal of Research on Adolescence*, *13*, 25–55.

Harring, M. (2011). *Das Potenzial der Freizeit* [The Potential of Leisure]. Wiesbaden: VS.

Hascher, T. & Hagenauer, G. (2011). Schulisches Wohlbefinden im Jugendalter [School well-being in adolescence]. In A. Ittel, H. Merkens & L. Stecher (Eds.), *Jahrbuch Jugendforschung.* (S. 15–45). Wiesbaden: VS.

Hemming, K., & Reißig, B. (2015). Freizeitaktivitäten jugendlicher Hauptschüler/innen und ihr Einfluss auf berufliche Zielorientierungen und den Übergang in Ausbildung und Beruf [Leisure activities of

adolescent secondary school students and their influence on vocational goal orientations and the transition to training and employment]. *Diskurs Kindheits- und Jugendforschung*, *10*, 81–97.

Hemming, K. & Tillmann, F. (2023). Selektive Freizeit – Soziale Herkunft und die Nutzung non-formaler Bildungsangebote im Jugendalter [Selective Leisure Time – Social background and the use of non-formal education in youth]. *Zeitschrift für Soziologie der Erziehung und Sozialisation, 43,* 4–21.

Hille, A., & Schupp, J. (2015). How learning a musical instrument affects the development of skills. *Economics of Education Review*, *44*, 56–82.

Lareau, A. (2002). Invisible Inequality. *American Sociological Review*, *67*, 747–776.

Larson, R. W., Hansen, D. M., & Moneta, G. (2006). Differing profiles of developmental experiences across types of organized youth activities. *Developmental Psychology*, *42*, 849–863.

López-Sintas, J., Ghahraman, A., & Pérez Rubiales, E. (2017). Young people's leisure patterns. *Journal of Youth Studies*, *20*(2), 180–199.

Mahoney, J. L., & Cairns, R. B. (1997). Do extracurricular activities protect against early school dropout? *Developmental Psychology*, *33*, 241–253.

Mahoney, J. L., & Stattin, H. (2000). Leisure activities and adolescent antisocial behavior: The role of structure and social context. *Journal of Adolescence*, *23*, 113–127.

Mahoney, J. L., Schweder, A. E., & Stattin, H. (2002). Structured after-school activities as a moderator of depressed mood. *Journal of Community Psychology*, *30*, 69–86.

Meier, A., Hartmann, B. S., & Larson, R. (2018). A Quarter Century of Participation in School-Based Extracurricular Activities. *Journal of Youth and Adolescence*, *47*(6), 1299–1316.

Metsäpelto, R.-L. & Pulkkinen, L. (2014). The benefits of extracurricular activities for socioemotional behavior and school achievement in middle childhood. *Journal for Educational Research Online*, *6*(3), 10–33.

Modecki, K. L., Blomfield Neira, C., & Barber, B. L. (2018). Finding what fits: breadth of participation at the transition to High School mitigates declines in self-concept. *American Psychological Association*, *54*(10), 1954–1970.

Moskaliuk, J., & Cress, U. (2016). Quantitative Methoden zur Erforschung informellen Lernens [Quantitative methods for the study of informal learning]. In M. Rohs (Ed.), *Handbuch Informelles Lernen* (pp. 659–674). Wiesbaden: VS.

O'Donnell, A. W., Pegg, K. J., & Barber, B. L. (2019). Involvement in Clubs and Organizations. In J. D. Jewell & S. Hupp (Eds.), *The encyclopedia of adolescent development* (pp. 1–11). Hoboken: Wiley-Blackwell.

Peck, S. C., Roeser, R. W., Zarrett, N., & Eccles, J. S. (2008). Exploring the Roles of Extracurricular Activity Quantity and Quality in the Educational Resilience of Vulnerable Adolescents. *The Journal of Social Issues*, *64*(1), 135–156.

Perrson, A., Kerr, M., & Stattin, H. (2007). Staying in or moving away from structured activities. *Developmental Psychology*, *43*(1), 197–207.

Raymore, L. A., Barber, B. L., & Eccles, J. S. (2001). Leaving Home, Attending College, Partnership and Parenthood. *Journal of Youth and Adolescence*, *30*(2), 197–223.

Reißig, B., Tillmann, F., Steiner, C., & Recksiedler, C. (2018). *Was kommt nach der Schule? Übergangspanel II* [What comes after school? Transition panel II]. München: DJI.

Rost, J. (2004). *Lehrbuch Testtheorie – Testkonstruktion* [Textbook test theory – test construction]. Bern: Huber.

Sauerwein, M., Theis, D. & Fischer, N. (2016). How Youth's Profiles of Extracurricular and Leisure Activity Affect their Social Development and Academic Achievement. *International Journal for Research on Extended Education*, *4*(1), 103–124.

Smith, T. J., & McKenna, C. M. (2013). A Comparison of Logistic Regression Pseudo R2 Indices. *Multiple Linear Regression Viewpoints*, *39*(2), 17–26.

Stecher, L. & Maschke, S. (2013). Research on extended education in Germany. A general model with all-day schooling and private tutoring as two examples. *IJREE – International Journal for Research on Extended Education*, *2013*(1), 31–52.

Suter, L. R., & Györi, J. G. (2021). The contribution of research on out-of-school-time on educational theories and practice. *Hungarian Educational Research Journal*, *11*(3), 311–335.

Tarazona, M. & Tillmann, K. (2013). Der Einfluss kulturellen und sozialen Kapitals auf die kulturellen Aktivitäten im Aufwachsen junger Menschen [The impact of cultural and social capital on cultural activities as young people grow up]. In M. Grgic & I. Züchner (Eds.), *Medien, Kultur und Sport. Die MediKuS-Studie* (S. 195–215). Weinheim: Beltz.

Urban, J., Lewin-Bizan, S., & Lerner, R. M. (2010). The role of neighborhood ecological assets and activity involvement in youth developmental outcomes. *Journal of Youth and Adolescence*, *39*, 783–800.

Weller, B. E., Bowen, N. K., & Faubert, S. J. (2020). Latent Class Analysis. *Journal of Black Psychology*, *46*(4), 287–311.

Zeijl, E., Du Bois-Reymond, M., & Poel, Y. t. (2001). Young Adolescents' Leisure Patterns. *Society and Leisure*, *24*(2), 379.