LLBG-Bibliographie / *LLBG-Bibliography*

Ludwigsburg-Luzerner Bibliographie zur Alltagsvorstellungsforschung in den Geowissenschaften
Ludwigsburg-Lucerne Bibliography on Conceptual Change Research in the Geosciences

Schlagwortsystematik / Keywords

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Anmerkungen:

- Bei der Verschlagwortung werden bei einem niederrangigen Schlagwort stets auch alle übergeordneten Schlagworte mit aufgenommen.
- Seit dem 31.7.2007 wird in der Endnote-Datenbank unter „Notes“ immer das Datum der Aufnahme in die Datenbank eingetragen (Format: 2007-07-31). Wenn Schlagworte („keywords“) verändert wurden, wird dies ebenfalls unter „Notes“ vermerkt.
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Kurzform	Schlagworte (keywords)	Erläuterungen
ASTRO	**Astronomie (astronomy)**	Nur Themen mit Relevanz für den Geographieunterricht
SEASON	- Revolution (revolution), Jahreszeiten (seasons)	
ROTEARTH	- Rotation (rotation), Tag- und Nacht (day and night)	
SHAPEEARTH	- Form der Erde (shape of the earth)	
MOON	- Mond (the moon)	z.B. Mondphasen, Gezeiten, …
STARS	- Sterne (stars)	z.B. Sichtbarkeit von Sternen, Sonnen
EARTHSYS	**System Erde (the Earth system)**	
SYSPROP	- Systemeigenschaften (system properties)	z.B. Vernetzungen zwischen Sphären, Rückkopplungen, Gleichgewichtszustände
GEOECO	- (Geo-) Ökologie ((geo-) ecology)	sphärenvernetzende Themen, z.B. Desertifikation, Weideökologie, Regenwald
CYCLE	- Stoffkreisläufe	z.B. Kohlenstoff-, Stickstoff-, Sauerstoffkreislauf
ATMOS	**Atmosphäre (Atmosphere)**	
STRUCATM	- Aufbau der Atmosphäre (vertical structure of the atmosphere)	
ELEMCLIM	- Klimaelemente (elements of climate)	z.B. Temperatur, Luftdruck, Luftfeuchtigkeit, Wind, Strahlung, …
CIRCPAT	- Atmosphärische Zirkulation (circulation patterns)	

CLIM	- Klima (climate)	
CLIMREG	o Klimazonen (climatic regions)	Einzelne Klimazonen (Tropen, Polare Zone, …) Klimazonierung der Erde, Klimaklassifikationen,
CLIMCHANGE	o Klimawandel (climate change)	global + regional, anthropogen + natürlich
WEATHER	- Wetter (weather)	Wetterbegriff, Wolken, Fronten, …
STORM	- Stürme + Wirbelstürme (storms, hurricans, typhoons)	
HUMINDATM	- Anthropogene Eingriffe in die Atmosphäre (human-induced atmospheric change)	
GREENHEF	o Treibhauseffekt (greenhouse effect)	
OZON	o Ozonloch (ozone hole, ozon depletion)	
AIRPOL	o Luftverschmutzung (air pollution)	
HYDROS	**Hydrosphäre (Hydrosphere)**	
HYDCYC	- Wasserkreislauf (hydrologic cycle)	
RIVERS	- Flüsse (rivers)	
LAKES	- Seen (lakes)	
GROUNDW	- Grundwasser (groundwater)	
OCEANS	- Ozeane (oceans)	
KRYOS	**Kryosphäre (Glacial Systems)**	
ICEAGE	- Eiszeiten (ice age)	
GLAC	- Gletscher (glaciers)	
LITHOS	**Lithosphäre (Lithosphere)**	
EARTHINT	- Schalenbau der Erde (vertical structure of the earth's interior)	
GEOLTIME	- Geologische Zeit / Erdgeschichte (geological time / earth system history)	
FOSSILS	- Fossilien (fossils)	
EVOL	- Evolution (evolution)	
GEOL	- Geologie (geology)	
ROCKS	o Gesteine (rocks)	z.B. Gesteinsentstehung, Gesteinseigenschaften, Gesteinskreislauf
MINRES	o Rohstoffe (mineral resources)	
TECT	- Tektonik (tectonics)	
VOLC	o Vulkanismus (volcanism)	
EARTHQUA	o Erdbeben (earthquake)	
OROGEN	o Gebirgsbildung (orogenesis, formation of mountain chains)	
PLATEC	o Plattentektonik (plate tectonics)	
GEOMOR	- Geomorphologische Prozesse (geomorphological processes)	
WEATHERING	o Verwitterung (weathering)	

EROSED	o Erosion + Sedimentation (erosion + sedimentation)	Erosion, Denudation, Massenbewegungen, fluviatile Prozesse, äolische Prozesse, …
LAND	- Landformen und Landschaften (landfoms and landscapes)	Täler, Flächen, Küsten, Wüsten, …
VALLEYS	o Täler (valleys)	
DESERTS	o Wüsten (deserts)	
COASTS	o Küsten (coasts)	
KARST	o Karst und Karstformen (karst and karst landforms)	
GLALAND	o Glazialformen (glacial landforms)	
PEDOS	**Pedosphäre (Pedosphere)**	Entstehung, Arten, Typen, Eigenschaften, Schädigung Zerstörung von Böden
BIOS	**Biosphäre (Biosphere)**	Mit Bezug zur Geographie, z.B. Vegetationszonen, Standortbedingungen, Vegetationsformationen Höhenstufen, Schädigung / Zerstörung von Vegetation
PERCSPACE	**Raumvorstellungen (perception of space)**	Mental Maps, Distanzwahrnehmung, Raumwahrnehmung, mentale Rotation, topograph. Vorstellungen
CARTO	**Kartographie (Cartography)**	Kartenlesen, Legende, Maßstab, Generalisierung, Kartenprojektionen
HUMGEO	**Humangeographie (human geography)**	Alle humangeographischen Themenfelder, auch Mensch-Umwelt-Themen mit humangeoograph. Schwerpunkt
WORLDVIEW	**Weltanschauungen (world view)**	Weltbild, Kosmologien, Wissenschaftsverständnis, religiöse Vorstellungen, Mythen, …
METHODS	**Arbeitsmethoden (methods)**	Fieldwork / Geländearbeit, Experimentieren, wissenschaftliches Arbeiten, Kartieren, Befragungen, …
OTHERS	**Sonstiges, oben nicht zuzuordnen (miscellaneous)**	

Keywords in STCSE-Bibliography (Duit 2009)

Source: http://www.ipn.uni-kiel.de/aktuell/stcse/bibint.html

g1 General considerations concerning research in this area.
This comprises publications that deal quite generally with this field of research.

g2 Everyday conceptions and scientific conceptions
This group deals specifically with relations between everyday conceptions and scientific conceptions.

g3 Development of conceptions in the history of science as compared to development of conceptions in individuals
Many studies have shown that conceptions occur among pupils today which also played a role in the historical development of science. The work of this group investigates the significance of historical development for the development of conceptions in the individual.

g4 Language and conceptions
Many conceptions originate in everyday language, a problem area investigated here.

g5 Methods of investigation
To this group we have assigned publications which discuss methods of investigation.

g6 Investigations of students' conceptions
This is by far the largest group and contains works which give information on conceptions in various areas. The works are divided into thematic areas (see below).

g7 Instruction taking students' conceptions into account
This group comprises investigations concentrating on instruction in which students' conceptions are taken into account. Again the works are divided into thematic areas.

g8 Investigations of teachers' conceptions
Teachers' conceptions of various kinds are put into this group, as in g6 the works are divided into thematic areas. To differentiate between students' and teachers' conceptions is sometimes not easy. In literature occasionally student teachers' conceptions are called teachers' conceptions. The present group of the bibliography only contains studies on conceptions of teachers who already work in school practice.

g9 Conceptions and teacher training
Studies in which new approaches for teacher training (based at the constructivistic view) are developed and which report on empirical studies about the evaluation of such approaches.

gp Practice studies
Studies investigating the practice os science instruction in "normal" schools by various methods, e.g. video-bases methods, questionnaire, classroom observations.

The different *science subjects* are indicated by:

GC	General conceptions and thought schemata (such as ideas of causality)
P	physics
C	chemistry
B	biology
ES	earth science (since 2001)

If a publication in group g6, g7 or g8 is not followed by one of these keywords, it does not deal specifically with conceptions relating to one of these subjects.

Subdivisions of Physics (additional keywords introduced in 1998: *)

AS	***astrononmy***	
AT	***atoms and particles***	
E	***electricity***	
	CIRC	electric circuit (*)
	CURR	current (*)
	VOLT	voltage (*)
	RESIS	resistance (*)
	ESTAT	electrostatics (*)
	EDYN	electrodynamics (*)
	EMAG	electromagnetism (*)
	INDU	induction (*)
	ELECTR	electronics(*)
EN	***energy***	
FLD	***field***	
INF	***information***	
MAG	***magnetism***	
M	***mechanics***	
	ACCEL	acceleration (*)
	FORCE	force (*)
	SPEED	speed, velocity (*)
	ROT	rotational movement (*)
	SIMM	simple machines (*)
	GRAV	gravity (*)
	WEIGHT	weight (*)
	MASS	mass (*)
	VOLUME	volume (*)
	DENSITY	density (*)
	PRESSURE	pressure (*)
	BUOY	buoyancy (*)
	OSMOSIS	osmosis (*)
	DIFFUSION	diffusion (*)
NONLIN	***non-linear systems***	
	CHAOS	chaos (*)
	FRACTAL	fractals (*)
	SELFOR	self organizing systems (*)
O	***optics***	
	LIGHT	light and seeing (*)
	REFLFR	reflection and refraction (*)
	LENSE	lenses and optical devices (*)
OSCI	***oscillations***	
Q	***quantum physics***	
R	***relativistic physics***	
S	***sound***	
T	***heat (thermal physics)***	
	HEATEM	heat and temperature (*)
	ENT	entropy (*)
	IRR	irreversibility (*)
	CHSTATE	changes of state (*)
	STATM	statistical mechanics (*)
WAVES	***waves***	

Subdivisions of Biology (since 1999)

BEHAVIOR	Behavior
BIODIV	Biodiversity (concepts of animals,plants, microorganisms)
BIOTECH	Biotechnology
ECOLOGY	Issues of ecology
EVOLUTION	Evolution
GENETICS	Genetics
GDD	Growth, development, differentiation

HEALTH	Health & disease
HOMEOSTA	Homeostasis
HUMAN	human biology
LIFE	Concepts of life, characteristics of living beings
PHYSIO	Physiological issues - bio-chemistry & physics phenomena like photosynthesis or metabolism
NEUROBIO	Neurobiology
SENSES	Senses

There are no subdivisions introduced for Chemistry and Earth Science

Further keywords referring to articles in the groups g6, g7 and g8.

GC	General conceptions and thought schemata (such as ideas of causality)
CTL	Conceptions of the teaching and learning process. This keyword emphazises empirical investigations on conceptions (of students or teachers) on teaching and learning.
CSC	Conceptions (on the "nature and range") of science. This keyword is used for empirical studies in which conceptions of science play a role.
STS	Conceptions on the use of science for technology and society. Under the heading of "STS" research and development, work is carried out on the use of science outside science. Empirical studies investigating conceptions of such uses in technology and society are marked by the keyword STS.
GEN	Empirical studies in which gender differences are investigated
LPRO	learning processes are investigated (since 1998)
VIDEO	video dates are used (since 2000)

Further keywords - mostly in g1 (since 1999):

ACTTH	activity theory	**MN**	mental models
AFR	alternative framework	**MMEDIA**	multi-media
AFF	affective issues	**MODEL**	role of models, modelling
APPR	cognitive apprenticeship	**NEURO**	neurological view of learning
ANTHRO	anthropomorphical issues	**PHEN**	phenomenological views
ANIM	animistic issues	**PROSOL**	problem solving
CC	conceptual change	**SITL**	situated learning (cognition)
COSC	cognitive science	**TXT**	textbook issues
CON	constructivism		
	RCON radical constructivism		
	SCON social constructivism	**AUSUBEL**	
DISCOURSE	discourse issues	**DEWEY**	
EXNOV	experts and novices	**DURKHEIM**	
INFORMAL	informal learning settings	**KELLY**	
IMAGE	role of images in learning	**PIAGET**	
LAB	experiment/lab work	**VYGOTSKY**	