

4. VAJA

Pisanje povzetka

UVOD

Kaj je povzetek?

Povzetek je največkrat prvi sestavni del strokovnega besedila, ki ga praviloma napišemo zadnjega. Povzetek ni uvod v strokovno besedilo, pač pa mora biti v njem predstavljeno področje, na katero strokovno besedilo sodi, opisan problem, ki ga besedilo obravnava, glavni rezultati, sklepi in ugotovitve. Namen povzetka je, da bralcu na kratko in zgoščeno ter na razumljiv način predstavi bistveno vsebino strokovnega besedila. Ker je povzetek poleg naslova deležen največje pozornosti bralcev, je treba skrbno pretehtati vsako besedo in stavek.

Zakaj pisati povzetek?

Povzetek bralcu omogoča, da se spozna z vsebino strokovnega besedila in presodi, ali vsebina strokovnega besedila ponuja informacije, ki so zanj uporabne oz. jih potrebuje za svoje delo (npr. razvojno ali raziskovalno delo, pisanje diplome ali članka), in ali naj prebere celotno besedilo. Povzetek bralcu omogoča tudi hitro obnovitev predhodno prebrane vsebine strokovnega besedila in njenih ključnih ugotovitev. Jasno in razumljivo napisan povzetek bo pritegnil večje število bralcev, kar bo pripomoglo k temu, da bo besedilo prebrano in da bo vaše delo doseglo bralce.

Katere ključne elemente mora povzetek vsebovati?

Čeprav je povzetek v primerjavi s celotnim strokovnim besedilom kratek, mora predstaviti celotno vsebino strokovnega besedila. Zato mora vsebovati kratke povzetke vseh delov strokovnega besedila, tj. uvoda, namena, metod, rezultatov, razprave ter zaključka. Povzetek je besedilo, pogosto strnjeno v en odstavek ali več kratkih odstavkov. Pogosto se v strokovnih besedilih za povzetek zahteva predpisana struktura, ki jo tipično sestavljajo naslednji sklopi [1,2]:

- **Izhodišče (angl. Background).** V izhodišču predstavimo vsebino oz. ozadje obravnavanega problema, ki ga v strokovnem besedilu opredelimo, najprej v širšem in v naslednji povedi v nekoliko ožjem smislu. Na koncu tega sklopa opredelimo glaven namen oz. cilje dela. Odgovoriti moramo na vprašanje: *Kakšnega problema smo se lotili in zakaj?*
- **Metode (angl. Methods).** Opišemo ključne spremenljivke in metode, ki smo jih uporabili pri proučevanju obravnavanega problema. Odgovoriti moramo na vprašanje: *Na kakšen način smo problem obravnavali/razrešili/razjasnili?*
- **Rezultati (angl. Results).** Povzamemo ključne rezultate in ugotovitve obravnavanega problema. Odgovoriti moramo na vprašanje: *Kaj smo naredili/odkrili/ugotovili?*
- **Zaključek (angl. Conclusion).** Opišemo, kaj rezultati pomenijo oz. novega prispevajo k obstoječemu znanju in kako bodo (lahko) v prihodnje uporabljeni. Odgovoriti moramo na vprašanje: *Kaj dobljeni rezultati pomenijo in prinašajo novega?*

Katere lastnosti mora povzetek imeti?

Povzetek mora biti [1]: izčrpen, bistven, kratek, zgoščen, jedrnat, brez ponavljanj, povezan, razumljiv, jasen, samostojen, neodvisen, objektiven.

Uporabni nasveti pri pisanju povzetka.

- Pri pisanju povzetka uporabljajte **PRVO** osebo množine.
- Povedi smiselno povezujte med seboj.
- Izpustite nepotrebne oz. odvečne besede in informacije.
- Povzetek mora odražati iste misli kot izvirno strokovno besedilo.
- Poenostavite strokovno izražanje, da bo povzetek razumljiv širšemu krogu bralcev, tudi tistim z malo tehničnega znanja. Uporabite le tiste manj splošne strokovne termine, ki so nujni za razumevanje, vendar jih morate razložiti.
- Pri izbiri pravih strokovnih izrazov s področja elektrotehnike si lahko pomagata z različnimi spletnimi seznamami tehničnih izrazov v slovenskem in/ali angleškem jeziku. Na spletnem naslovu <http://www.evroterm.gov.si/slovar/index.html> lahko najdete knjižnico z več kot 900 prosto dostopnimi slovarji in drugimi prevajalskimi pripomočki za več kot 40 jezikov. Med drugim lahko dostopate do večjezičnega priročnika izrazov in definicij za elektrotehniko in elektroniko, ki ga je izdal Urad za standardizacijo in meroslovje [3]. Obstaja tudi prosto dostopna tujejezična elektrotehniška terminološka zbirka [4]. Seznam nekaterih pogostih tehničnih izrazov (pa tudi ključnih besed) v angleškem jeziku najdete v [5].
- Slovensko-angleški slovarček uporabnih izrazov pri pisanju znanstvenih in tehniških poročil najdete v Dodatku 1 [6].
- Bodite pozorni, da v angleškem povzetku enotno uporabljate stil pisanja v ameriški oz. britanski angleščini.
- Izogibajte se uporabi kratic in okrajšav.
- V povzetek ne vključujte referenc in sklicev na slike, tabele ali enačbe.
- Preverite, da povzetek ne vsebuje slovničnih in tipkarskih napak.
- Preverite, da dolžina povzetka ustreza navodilom.
- Primer povzetka napisanega v slovenskem in angleškem jeziku najdete v Dodatku 2.

Kaj so ključne besede in kako jih izberemo?

Ključne besede (angl. *Keywords*) so gesla, ki opišejo vsebino strokovnega besedila. Sistemi za iskanje strokovnih besedil na spletu ali v knjižnicah največkrat primerjajo naše iskano geslo z besedami v naslovu in ključnimi besedami nekega besedila. Med ključne besede ni smiselno umestiti besed, ki se pojavljajo v naslovu, saj nam sicer ne prispevajo k sliki o tem, katere vsebine besedilo zajema. Ključne besede praviloma sledijo povzetku.

NAMEN VAJE

- Seznaniti se s ključnimi elementi povzetka.
- Sestaviti kratek, zgoščen in razumljiv povzetek v slovenskem in angleškem jeziku.
- Naučiti se izluščiti najpomembnejše ključne besede.

DOMAČA NALOGA

- Dopolnite zadnjo verzijo seminarske naloge s povzetkom in ključnimi besedami v slovenskem in angleškem jeziku. Povzetek naj bo strukturiran in sicer naj ga sestavljajo naslednji sklopi: Izhodišče, Metode, Rezultati in Zaključek oz. v angleški različici: Background, Methods, Results, Conclusion. Povzetek naj vsebuje najmanj 100 in največ 150 besed. Navedite 4–6 ključnih besed.

- Pazite, da boste upoštevali oblikovna navodila za povzetek in ključne besede, ki ste jih dobili pri 2. vaji o tehničnem urejanju besedil. Primer oblikovno in vsebinsko ustreznega povzetka je v Dodatku 2. POZOR! Velikost črk v povzetku in ključnih besedah zmanjšajte na 9pt! Velikost črk naslova seminarja v angleškem jeziku zmanjšajte na 10pt!
- Ocena povzetka bo temeljila na ocenjevanju in preverjanju:
 - ustrezne vsebine (zajemanje bistva),
 - ustrezne strukture (sklopi),
 - ustrezne dolžine,
 - ustrezne uporabe jezika (izrazoslovje, pravopisna točnost).
- Seminarsko nalogo, dopolnjeno s povzetkom in ključnimi besedami v slovenskem in angleškem jeziku z imenom **vaja 4_ime priimek**, mi pošljite po elektronski pošti do **četrтка, 5. 11., do 8.00.**

LITERATURA

- [1] Guidelines for Writing a Summary:
<http://rwc.hunter.cuny.edu/reading-writing/on-line/summary.pdf> (dostop: oktober, 2015)
- [2] Weiss M, Newman A. M. *A guide to writing articles in energy science*. Applied Energy, 88:3941-3948, 2011.
- [3] Urad za standardizacijo in meroslovje. *Večjezični priročnik izrazov in definicij za elektrotehniko in elektroniko*. Ljubljana, 1999. file:///C:/Users/alenkamr/Downloads/1999-Slovar-EN-SL.pdf (dostop: oktober, 2015)
- [4] Electropedia: The World's Online Electrotechnical Vocabulary: <http://www.electropedia.org/> (dostop: oktober, 2015)
- [6] Slovensko-angleški slovarček uporabnih izrazov pri pisanju znanstvenih in tehniških poročil: <http://www.kii.ntf.uni-lj.si/db/glossary/slo/>. (dostop: oktober, 2015)

DODATEK 1

SLOVENSKO-ANGLEŠKI SLOVAR UPORABNIH IZRAZOV PRI PISANJU ZNANSTVENIH IN TEHNIŠKIH POROČIL [6]

Slovenski izraz	Angleški izraz
bistven	crucial, vital, essential
biti mnenja	believe, hold, be of the opinion (that)
biti sestavljen iz	comprise, consist of, (be) made of, formed of, include, involve
cilj	aim, goal, objective, purpose, target
če	If, should, when/where, in (the) case that
čeprav	even though, although, whereas,
dajati poudarek nečemu	place stress on sth., emphasize, highlight
dejansko	in fact, indeed, actually, in reality, de facto, effectively
do neke mere	to some extent, to some degree, to some measure
dober (rezultat)	good, excellent, exemplary, fine convincing, sound, positive, valuable
dobiti	obtain, get, acquire
dogajati	take place, happen, occur
dograjevati	upgrade, perfect, improve, modernize, advance, supplement, extend, build (upon)
dokaz	evidence, proof, signal, sign, a sign of, an indication of
dokazati	show, demonstrate, prove, indicate, highlight, confirm, establish, verify
določiti	determine, establish, fix
doseči	achieve, accomplish, complete, obtain, attain
glavni	main, principal, general, capital, primary, chief
Gre za ...	What is involved is..., What this involves (concerns)...., as far as concerns, as far as ... is concerned, in so far as ... is concerned
ideja	idea, notion, plan, proposal, hypothesis, proposition, theory, view, belief, opinion, concept
izdelati	produce, make, manufacture
izhajati (iz)	emerge, arise, result (from, in), come (from)
izpeljati	perform, do (research), carry out, conduct
izrazit	obvious, apparent, coherent, distinct, evident, perceptible, pronounced, striking, expressed (med.) recognizable, transparent
jasen	distinct, obvious, apparent, coherent, evident, perceptible, pronounced, striking, expressed (med.) recognizable, transparent
kazati na	reveal, show, indicate, demonstrate
ker	because, since, as, owing to, due to, on account of
klasičen	standard, classic, traditional, typical, normal, regular, usual, customary
klasificirati	classify, categorize, divide, group, sub-divide
končati	conclude, finish, complete, end, terminate, bring to an end
končno	so, finally, to conclude, in conclusion
kontrolirati	control, monitor, regulate, manage, supervise, oversee, check
kot v primeru	as in (the) case of, as is often the case
krepi	reinforce, intensify, empower, strengthen, back up
ločevati	distinguish (between), differentiate (among), separate, make a distinction (between)
malo	little, small, minor, sparse/slight, limited, insufficient, hardly any, insignificant, negligible
meriti	measure, quantify, assess (quality)
mnenje	opinion, view, point of view, viewpoint, position on, standpoint, attitude, belief, idea, judgement, conviction, assertion, theory
možen	possible, likely, probable, feasible, potential, plausible, conceivable, hypothetical
na kratko opisati	give a short description (of), outline, mention, describe briefly
na primer	for example, for instance, to illustrate, e.g.
na splošno	usually, generally, on the whole, for the most part, in most cases
načeloma,	as a rule, generally speaking
načrt	plan, scheme, project, outline
nadzorovati	control, monitor, regulate, manage, supervise, oversee, check
nakazovati	suggest, indicate, predict, reveal, show, point (to), indicate, signal, imply
namen	purpose, aim, goal, objective, target
namen	purpose, function, aim, use
namenjen	intended (for), designed (for), aimed at

nanašati se na	be concerned with, be associated with, be related to, deal with, involve
naslednji	next, following, subsequent
nasploš	in general, generally speaking, as a rule, overall, on the whole
nasploš	generally, in general, generally speaking, normally, usually, largely, on the whole, for the most part, altogether, overall, mainly, principally, above all, primarily, chiefly, essentially, in most cases, in the majority of cases,
nasprotno,	in contrast, by contrast, in opposition to
naštevati	enumerate, list
ne strinjati se	disagree, argue (about), not agree with, oppose, object, take different position
nedvomno	there can be no doubt that, almost certainly (assuredly)
nenehen	constant, regular, uninterrupted, continuous
nosilec (projekta)	(those) in charge of, project led (conducted by), under the charge of
običajen	regular, usual, customary, standard, classic, traditional, typical, normal
obravnavati	treat, deal with, tackle
obseg	scope, range, extent
ocenjevati	estimate, assess, judge, evaluate
očitno	obviously, clearly, naturally, it goes without saying, it is evident that
odpirati možnosti	generate opportunities
odstraniti	remove, eliminate, displace, get rid of, take away
odvijati se	take place, occur, done (in/at), carried out (in/at)
odvisen	be subject to, depending on, linked to
ojačiti	strengthen, magnify, multiply, amplify, intensify, heighten, escalate
omembe vreden	noteworthy, worthy of mention, to be considered
omeniti	mention, describe briefly, outline, give a short description (of), review
omogočiti	enable, allow (for), make possible
opaziti	observe, note, mark
opazna	marked (difference), change, shift
(razlika/sprememba)	
osredotočiti se (na)	focus, concentrate (on)
oziroma	and, i.e., or
po drugi strani	in contrast, by contrast, in opposition to
po drugi strani	on the other hand, in contrast to, alternatively, otherwise
podatki	data, facts, figures, results, findings, information, records, statistics, material, documentation
podobno	equally, likewise, similarly,
podpirati (teorijo)	support, justify (a theory) support evidence, underpin, agree with, back up, reinforce, strengthen, aid
področje	area, field, subject
poglobljen	in-depth, detailed, thorough systematic, comprehensive, fundamental, profound
pojasniti	explain, clarify, illustrate, define, demonstrate
pojavit se	occur, happen
pojavljati	occur, take place, happen, result, appear, materialize, exist
poleg tega	moreover, furthermore, in addition, besides, also, apart from this
pomagati	assist, help, aid
pomanjkljivost	limitation, disadvantage, deficiency
pomemben	significant, crucial, vital, important, main, major, central, focal, principal, outstanding, essential, salient, valuable, far-reaching
pomeniti	mean, indicate
ponazoriti	illustrate, give an example of
poročati	report, note, observe
poskušati	attempt, try, endeavor
pospešiti	accelerate, speed up, improve
poudarek	emphasis, stress, weight, attention
poudariti	emphasize, stress, give prominence to
povečati	increase, raise, augment, grow, enlarge, expand, extend, widen, raise, magnify, multiply, amplify, intensify, heighten, escalate
povezati	link, join, connect, relate, attach, combine, integrate, merge, unite, correlate, associate, couple with, attach, bond/bind, combine
povzeti (ugotovitve)	review, summarize
precejšen	considerable, substantial, large, great, vast, extensive, major
predlagati	propose, suggest, recommend
predvsem pa	not to mention, in particular, most of all
preprečevati	hinder, prevent, stop, avoid

prepreka	barrier, handicap, obstacle
preučevati	study, examine, investigate, look into, explore, research (into), analyze, survey, observe, view
preveriti	verify, check, review, test (!sometimes control),
pridobiti	obtain, get, acquire
pridobiti	obtain, acquire, get (from), extract
priti do (zaključka, sporazuma)	arrive at a conclusion, decision, agreement/settlement)
problem	problem, question, issue, dilemma
prvi	first, initial
razdeliti	divide, classify, categorize, group, sub-divide
raziskovati	investigate, study, examine, look into, explore, research (into), analyze, survey, observe, view
razlagati (si rezultate)	view, understand, explain (results)
različni (avtorji)	various, diverse, several, a number of(authors)
razlikovati	distinguish (between), differentiate (among), separate, make a distinction (between)
razviden	evident, obvious, clear
realizirati	put into practice, implement, put into operation, put into effect, complete
rezultirati (voditi do)	result, produce, lead to, cause, yield, give
s tega vidika	from this point of view (aspect), from these considerations
s tem ...	and, furthermore, also, following on from this, thus
saj	since, because, consequently, therefore, as a result, hence
samo	only, solely, merely, purely, exclusively
sestavni del	component, element, constituent/essential part
shema	graph, diagram, flow-chart, figure
sicer	on the other hand, in contrast to, alternatively, otherwise
(in) sicer	i.e., otherwise, meaning that, generally
skladati se z	consistent with, coincide with, conform to, correspond to, match, fit
sklepati (o)	deduce, infer, draw conclusions (from)
skupina	group, category, class, collection, set, series, batch, cluster
slab	poor, insufficient, weak, inconclusive, inadequate, imperfect, unfavourable, unsatisfactory, indifferent
sodelavec	associate, colleague, co-worker
sodelovati	co-operate, collaborate, (in association with)
spodbujati	encourage, promote, foster, stimulate, give impetus to
sprejeti (resolucijo, sporazum, zakon)	adopt (resolution, agreement, law)
spremeniti	alter, vary, alternate, modify adapt, change, transform
stališče	opinion, view, point of view, viewpoint, position on, standpoint, attitude, belief, idea, judgement, conviction, assertion, theory
strinjati se	accept , agree, concur (with)
še posebno	in particular, especially, mainly, particularly
študija	research, investigation, study, work, paper, report, review, survey, thesis, dissertation, monograph collection of papers, analysis, examination
tako da	so as to, so that, in order to ...
tekoči (projekt)	current, on-going, present (project)
tip	type, sort, group, class, category, grade
to je	i.e.
to pomeni	i.e.
točneje	more specifically, more precisely, or rather
torej	consequently, therefore, as a result, hence
trditi	maintain, state, claim, consider (that), hold say, note, observe, remark, point out, make the point that, suggest, argue, stress, emphasize
tvoriti	constitute, form, shape, make up, produce, construct, give, generate, yield, bring about
učinkovit	efficient, efficacious, effective
ugotoviti	find, find out, note, discover, establish, ascertain, determine, learn realize, identify, detect
uporabiti (rezultate)	use, apply
upoštevati	consider, take into consideration (account), accept
uskladiti	adapt to, harmonize with, (suited to, adapted to)
ustrezen	suitable, appropriate, correct, corresponding
v glavnem	as a rule, generally speaking

v glavnem	mainly, principally, above all, primarily, chiefly, essentially, in most cases, in the majority of cases, generally, in general, generally speaking, normally, usually, largely, on the whole, for the most part, altogether, overall
v korak z	be (go) abreast of, be (go) abreast with, keep pace with
v postopku preučevanja	under consideration, under examination, under investigation, under study, under test, still being tried
v primeru	in (the) case of, in the event of
v skladu z	in conformity (harmony) with, following (sth.), in line with, in accordance with
več (avtorjev)	several, a number of, various, diverse (authors)
večinoma	on the whole, by and large, generally
večji del	majority, most, for the greater part, for the most part
velik	large, great, vast, extensive, considerable, substantial, major
verjeten	possible, likely, probable, feasible, potential, plausible, conceivable, hypothetical
verjeti	believe, hold, be of the opinion (that)
vključevati	comprise, include, consist of, incorporate, cover, involve, contain, hold, involve, incorporate, possess include, encompass, embrace
voditi (raziskavo)	conduct, do (research), carry out, perform
vpliv	impact, influence, (have an) effect (on)
vplivati na	have impact on, influence, modify
vrsta	type, sort, group, class, category, grade
vse večji	ever-increasing, ever-growing
vzbuditi zanimanje	arouse (generate, stimulate) interest
z dne (18. dec.)	as of (Dec. 18th), dated 18 Dec.
z drugimi besedami	in other words, to put it another way, to be more precise, or, rather, that is to say, i.e., that is, namely
začeti	begin, commence, start
zadevati	touch on, concern, deal with, What is involved is.., What this involves (concerns)....as far as concerns, as far as ... is concerned, in so far as ... is concerned
zadnji	recent, last, final, concluding
zagotavljati	ensure, assure
zaključiti (študijo)	complete, finish
zanemarljivo	negligible, hardly any, insignificant, little, small, minor, sparse/slight, limited, insufficient
zaradi	owing to, due to, on account of, because of, as
zato	therefore, as a result, consequently, because of this (that), thus, hence, for this reason, as a consequence, it follows that, it goes without saying (that)
zavedati se	keep (bear) in mind, consider, remember, be aware of, be conscious of
zavirati	hinder, prevent, stop, avoid
zbrati (podatke)	collect, gather (data)
zdeti se	appear, seem
zdraviti	treat, cure
zlasti	especially, in particular
zmanjšati	decrease, decline, fall, drop, lower, reduce, subside
zmanjševanje	decrease, a reduction in or of, a loss of, a decline in, reduction, decline, drop, diminution
značilnost	(typical) feature, characteristic
znaten	considerable, substantial, large, great, vast, extensive, major
že (v prejšnjem stoletju)	as early as/as far back as/ already/even in (in the previous century)

DODATEK 2: PRIMER POVZETKA

VELIKOST TUMORJA IN UČINKOVITOST ELEKTROKEMOTERAPIJE

IZHODIŠČA. Elektrokemoterapija je učinkovita in varna metoda za lokalno zdravljenje tumorjev, vendar je v odzivu posameznih tumorjev na elektrokemoterapijo prisotna velika variabilnost, domnevno zaradi različnih pogojev pri zdravljenju. Namen naše študije je bilo raziskati zvezo med velikostjo tumorja in učinkovitostjo elektrokemoterapije.

METODE. Izvedli smo sistematični pregled različnih bibliografskih baz in identificirali devet študij, ki so ustrezale namenu naše študije. Analizo podatkov smo izvedli s splošnimi statističnimi metodami.

REZULTATI. Rezultati pridobljeni iz 1466 tumorjev zdravljenih z enkratno elektrokemoterapijo kažejo nižjo učinkovitost elektrokemoterapije na tumorjih s premerom ≥ 3 cm (delež popolnih odzivov = 33,3 %) v primerjavi z manjšimi tumorji (delež popolnih odzivov = 59,5 %). Ugotovili smo, da učinkovitost elektrokemoterapije značilno upada z naraščajočim premerom tumorjev.

ZAKLJUČEK. Standardne operativne postopke za elektrokemoterapijo bi bilo potrebno izpopolniti za zdravljenje predvsem večjih tumorjev. Predlagamo, da bi bilo smiselno v prihodnje študije vključiti individualizirano načrtovanje zdravljenja in/ali zdravljenje z več zaporednimi aplikacijami elektrokemoterapije.

KLJUČNE BESEDE: elektroporacija; kožni tumorji; učinkovitost terapije; premer tumorja; meta-analiza

TUMOR SIZE AND EFFECTIVENESS OF ELECTROCHEMOTHERAPY

BACKGROUND. Electrochemotherapy is an effective and safe method for local treatment of tumors. However, relatively large variability in effectiveness has been observed, which likely results from different treatment conditions. The aim of this study was to investigate the relationship between tumor size and effectiveness of electrochemotherapy.

METHODS. A systematic search of bibliographic databases was performed. Nine eligible studies were extracted. Different statistical methods were applied to analyze the data.

RESULTS. The results based on data from 1466 tumors show lower effectiveness of single-session electrochemotherapy on tumors with maximal diameter ≥ 3 cm (complete response = 33.3 %) in comparison to smaller tumors (complete response = 59.5 %). A decrease in effectiveness of electrochemotherapy progressively with increasing tumor diameter was found.

CONCLUSION. The standard operating procedures for electrochemotherapy should be refined for the treatment of large tumors. We propose that future clinical trials should include electrochemotherapy treatment planning and/or multiple electrochemotherapy cycles.

KEYWORDS: electroporation; superficial tumors; therapy effectiveness; tumor diameter; meta-analysis